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STAMMERING
ETC
—
HUNT



S T A M M E R I N G

AND

S T U T T E R I N G .

STAMMERING

AND

STUTTERING,

THEIR

NATURE AND TREATMENT,

BY

JAMES HUNT, PH.D., F.S.A., F.R.S.L.,

FOREIGN ASSOCIATE OF THE ANTHROPOLOGICAL SOCIETY OF PARIS;
FELLOW OF THE ANTHROPOLOGICAL AND ETHNOLOGICAL SOCIETIES OF
LONDON; CORRESPONDING MEMBER OF THE UPPER HESSE SOCIETY
FOR NATURAL AND MEDICAL SCIENCE; AUTHOR OF A "MANUAL
OF THE PHILOSOPHY OF VOICE AND SPEECH;"
ETC., ETC.

FIFTH EDITION.

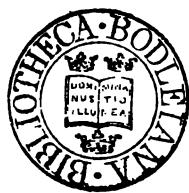
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“ LANGUAGE IS TO THE MIND WHAT BEAUTY IS TO THE BODY.”
Aristides the Rhetorician.



TO MY PUPILS.

HAVING in a preceding edition formally dedicated this work to you, the present affords me a fitting opportunity of addressing a few words to as many of you who, though scattered in the world, continue taking an interest in my labours.

My thanks are specially due to you for assisting me to remove the scepticism still existing in the public mind, in relation to the successful treatment of impediments of speech.

I now ask for a continuance of your assistance, by informing the public, that the plan I adopt for the cure of impediments of speech simply consists in the rational application of the known laws of physiology and psychology, and not in any charm, which I regret to say, seems to be the impression of many who apply to me for relief.

It cannot be too frequently repeated, nor too widely known, that the difficulty of cure is great in proportion as the defects of articulation are numerous or deeply rooted; that the acquisition of perfect utterance is the result of labour; and that the efforts of

the teacher are of little efficacy unless heartily seconded by the perseverance of the pupil.

Permit me also to remind you, that for the permanence of a cure, a strict and conscientious adherence to the laws inculcated, for a considerable period *after* the acquired improvement, is not less essential than their observance during the treatment itself. I need scarcely add, that to hear of your success in your respective avocations, will ever afford the deepest gratification to

Your sincere friend,

JAMES HUNT.

*Ore House, near Hastings,
January 26th, 1863.*

PREFACE TO THE FIFTH EDITION.

THE fact of another edition being called for, within a comparatively short time, is a sure sign that I have not been unsuccessful in supplying what I deemed to be a desideratum.

It appeared to me a point of primary importance that the field of impeded utterance should be comprehensively surveyed, so that the reader might have a panoramic view of all the theories and speculations on this subject, from the earliest period to the present time, as well as the results of their application. In reviewing these various doctrines, I have not hesitated to express my opinion candidly, but I trust not arrogantly.

The omission of some subjects, such as the chapter on minor defects, etc., which I intend to treat in a separate work, has enabled me to introduce numerous and important additions. This edition has, moreover, undergone further revision, and I hope also to have amended the general arrangement.

For reasons stated in the text, it is not pretended that a mere perusal of these pages will enable afflicted persons to cure themselves; but they certainly will derive from it every information as to the nature of their infirmity, as well as the conviction that impediments of speech, so long held to be incurable, are as amenable to treatment as other disorders of the human frame.

One of the main objects of this work is, moreover, to impress on parents and guardians the great importance of meeting the evil in embryo, so as to prevent it taking root.

In expressing my acknowledgments for the favourable reception my former contributions to this subject have met with from the Press, the Medical Profession, and Public generally, I may be allowed to add that it has been my anxious desire to render this little volume as complete as possible, in order to make it more worthy of the favour bestowed on its predecessors.

JAMES HUNT.

January, 1863.

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CORRIGENDA.

Page 9, line 9, <i>for</i> fact, <i>read</i> fact.
Page 34, line 11, <i>for</i> it says, <i>read</i> he says.
Page 98, line 12, <i>for</i> are, <i>read</i> is.

INTRODUCTION.

STAMMERING AND STUTTERING DEFINED.

CHAPTER I.

AMONG the many calamities incidental to the human frame there are few so distressing to the sufferer and so annoying to his friends as confirmed stuttering. Not only is the whole physical frame distorted, but the anguish of the mind is so severe in some cases that its healthy action is frequently impaired. Those persons who have only occasionally met with cases of defective utterance in general society, can have but a faint idea of the agony of its victims, unless they have witnessed its effects in the domestic circle, or in subjects in whose welfare they have felt interested. It is, indeed, a melancholy spectacle to see a youth, born to a good position, of refined intellect, possessing extensive information, seemingly destined

to adorn society, and yet, though so highly gifted, unable to give oral expression to his thoughts, without inflicting pain on those who listen to him, or subjecting himself to ridicule; for, while the deaf-mute is pitied, the stutterer is generally laughed at.*

But not only is the victim of defective utterance debarred from the pleasures of social intercourse, he must also give up all hope of professional success at the bar, the pulpit, the senate, and the chair, and must strike out for himself some new path for which, perhaps, neither his talents nor inclination fit him.

Nor is an impediment of speech less distressing when it affects females. The adage of Horace,† that stammering is becoming in females, is, if not sheer irony, a poetical license. A cynic would say, “It is just possible that a slight singularity of enunciation may serve to draw attention to other graces a young lady may possess;” but it is equally certain that defective speech throws all the enchantments of youth and beauty into the shade, and must eventually blight the happiness of any woman.

* “To laugh at the misfortunes of our fellow creatures is certainly very wrong, but so ludicrous are the grimaces of most stutterers, that it is next to impossible not to laugh them in the face. The Italian stage had, in my time, a special actor (*il tartaglia*) to play the part of the stutterer.”—*Prae. Med. Univ.*, J. Frank).

† *Feminas verba balba decent.*

A popular author has well depicted this distressing affliction in the following verses entitled *The Stammerer's Complaint*.*

“Hast ever seen an eagle chained to the earth?
A restless panther to his cage immured?
A swift trout by the wily fisher checked?
A wild bird hopeless strain its broken wings?”

“Or ever felt, at the dark dead of night,
Some undefined and horrid incubus,
Press down the very soul, and paralyse
The limbs in their imaginary flight
From shadowy terrors in unhallowed sleep?”

* * * * *

“Then thou canst picture—ay, in sober truth—
In real, unexaggerated truth—
The constant galling, festering chain that binds
Captive my mute interpreter of thought;
The seal of lead enstamped upon my lips,
The load of iron on my labouring chest,
The mocking demon, that at every step,
Haunts me, and spurs me on—to burst in silence.”

“I scarce would wonder if a godless man
(I name not him whose hope is heavenward),
A man whom lying vanities hath scath'd
And harden'd from all fear—if such an one,
By this tyrannical Argus goaded on,
Were to be wearied of his very life,
And daily, hourly foiled in social converse
By the slow simmering of disappointment,
Become a sour'd and apathetic being,
Were to feel rapture at the approach of Death,
And long for his dark hope—annihilation.”

* *Ballads for the Times.* By Martin F. Tupper.

Stammering and Stuttering Defined.

The great importance of paying paramount attention to the right use of words is thus forcibly given by Locke.* He says:—

“When I began to examine the extent and certainty of our understanding, I found that it had so near a connection with words that, unless their force and manner of signification were first well observed, there would be very little said clearly and pertinently concerning knowledge.”

“He that shall consider the errors and obscurity, the mistakes and confusion that are spread in the world by an ill-use of words, will find some reason to doubt whether language, as it has been employed, has contributed more to the improvement or hindrance of knowledge among mankind.”

“I know there are not words enough in our language to answer all the variety of ideas that enter into man’s discourses and reasonings. But this hinders not that when he uses any term he may have in his mind a determined idea, which he makes it the sign of, and to which he should keep it steadily annexed during that discourse.”

It will presently appear how forcibly these remarks of our great philosopher apply to our subject.

* Extracts from Locke’s *Essay on the Human Understanding*.

*Stammering as contra-distinguished from Stuttering.**—The terms “stammering” and “stuttering” are in this country synonymously used to designate all kinds of defective utterance. In no English work written upon this subject has the exact discrimination between these disorders, which differ both in kind and in origin, been laid down with scientific correctness. From this confusion of terms have arisen many errors in theory and in practice; for no treatment can be efficacious unless our diagnosis be correct. It is, therefore, requisite that the distinctive character of each affection should be clearly defined at the very outset.

Stammering (per se) is characterised by an inability or difficulty of properly enunciating some or many of the elementary speech sounds, either when

* *Synonyms expressive of Impediments of Speech in general, in various Languages.*

HEBREW.—Kobad peh (slow of speech); loag (to stammer); eleg (a stammerer).

GREEK.—Psellismos; traulismos; ischnophonia; battarismos.

LATIN.—Balbuties; blaesitas; hæsitantia linguae.

FRENCH.—Begayer; barbouiller; balbutier; bredouiller.

ITALIAN.—Balbetare; tartaliagre; scingulatio.

SPANISH.—Tartamudear.

GAEelic.—Gaggach; gagganach (a stammerer); mandach (lisping); briot (chitter-chatter).

ANGLO-SAXON.—Stomettan; stamer; phlips; melyst.

GERMAN.—Stammeln; stottern; anstossen.

ENGLISH.—Stammer; stut; stutter; lisp.

they occur at the beginning or the middle of a word, accompanied or not, as the case may be, by a slow, hesitating, more or less indistinct delivery, but *unattended with frequent repetitions* of the initial sounds, and consequent convulsive efforts to surmount the difficulty.*

Stuttering, on the other hand, is a vicious utterance, manifested by *frequent repetitions* of initial or other elementary sounds, and always more or less *attended with muscular contortions*.

Having thus concisely stated the distinctive mark of each disorder,† I proceed to consider them in their individual characters.

* The following is the description of the stammer of a little girl of ten years old, in the parent's own words:—"The child does not appear to be timid or nervous except before strangers. The stammering does not seem to be caused by any particular sounds, as she can pronounce, at times, every different vowel and consonant without difficulty. She rarely *commences* a sentence with a stammer, but in the middle of it, or even of a word of one syllable, will stop with her mouth wide open and keep moving her jaw without uttering any sound, and cannot be persuaded to stop until the word is spoken. When repeating after another person, she does so without the slightest hesitation; but then, after reading after another for several days, she read in so monotonous and drawling a manner, that it was quite distressing to hear her. She does not keep repeating any sound, as 'pa-pa-pa-tience,' but opens and shuts her mouth till the whole word comes out."

† To those unacquainted with the physiology of voice and speech, I subjoin a short account of the vocal organs. The pro-

Stammering and its Causes. Vowel Stammering.—
The belief that stammering occurs only in the pro-

duction of speech is effected by the conjoint agency of the respiratory, vocal, and articulating organs. The muscles of the abdomen, of the thorax, the diaphragm, the larynx, the pharynx, the tongue, and the face have all their necessary functions for the production of speech, and unless they act in harmony, there can be no right production of articulate language. The function of respiration may be carried on independent of articulation; but voice and speech cannot be produced without the action of the respiratory organs.

The respiratory apparatus includes the lungs, the trachea (windpipe), the ribs, and all the muscles connected with them, the diaphragm, and the abdominal muscles.

The production of the voice takes place in the *larynx*—a cartilaginous box situated at the anterior part of the neck on the top of the windpipe, with which it is connected by membranes and ligaments. On looking downwards into the interior of the larynx, there may be observed on each side two folds of the mucous lining membrane. These folds, which are composed of highly elastic tissue, have received the name of vocal cords or vocal ligaments.

The inferior membranes are the chief organs concerned in the production of voice; hence they are called the true vocal cords, while the superior membranes are termed the false vocal cords. The narrow opening between the true vocal cords is called the *rima glottidis* (chink of the glottis) or simply the glottis.

The vocal cords are acted upon by a variety of muscles, which have the power of shortening, elongating, or stretching them, by which the varieties of pitch are produced. But though all the fundamental sounds are produced in the larynx, they may, by the action of the organs between the glottis and the external apertures, such as the pharynx, the soft palate, the tongue, the teeth, etc., be so modified as to become articulate sounds—a combination of which constitutes speech.

nunciation of consonants is certainly erroneous ; the

The muscles by which articulation is effected are, at first, only partially subject to the will. Thus, we have a control over the movements of the lips, the cheeks, and the greater portion of the muscles of the tongue ; but over the muscles of the pharynx, the soft palate, and those muscles of the tongue which carry its root upwards or downwards, our power is not so complete.

“We may tell the patients,” observes Magendie, “to depress the tongue because it hides the tonsils ; they make many efforts, and it is more by chance than by volition that the action is obtained. If they are desired to raise the velum, the will has scarcely any power. It is the same with regard to the production of sounds in the larynx and in speaking. The voice is produced, we articulate without exactly knowing what movements are passing in the larynx or in the mouth. This is one of the marvellous results of animal organisation. This perfect mechanism, by which the most complicated acts are executed, is not subject to the will ; an admirable instinct presides, the perfection of which will always remain beyond human ken. It is this instinct which presides over the innumerable movements requisite for the production of voice and speech.”

These opinions of Magendie have been much canvassed ; but they are in the main correct. Magendie does not say, as he is represented, that the muscles of the root of the tongue, the soft palate, and the pharynx are *not* under our control, but only that they are not completely so. They may thus be considered as involuntary muscles in the act of deglutition ; but they are completely under the influence of the will of a perfect speaker or singer, although, like an acrobat, he may not be cognisant of the state of the particular muscles called into motion, nor of the mode by which he effects their harmonious action.

The principal nerves upon which the healthy action of the vocal and articulating apparatus depends are :—

1. The inferior laryngeal branch of the tenth pair, (*Pneumogastric*) called, from its peculiar reflex course to the larynx, the recurrent nerve, supplying most of the muscles of the larynx.

vowels are equally subject to this defect, though not

2. The glosso-pharyngeal, supplying the tongue and the pharynx.

3. The facial nerve (*portio dura*), by which the movements of the face and the lips are regulated.

4. The hypoglossal or lingual nerve, the principal branches of which are distributed to the tongue, of which it is the principal motor; to which must be added the phrenic nerve, supplying the diaphragm, and in fact, most of the nerves connected with respiration.

Muscles and nerves must act in harmony for the production of speech; and a want of control over the emission of voluntary power to one of these muscles or nerves, may affect a number of other muscles and nerves with which they are in the habit of acting conjointly.

The process of utterance is determined by a variety of nervous tracts upon which the activity of the muscles of the abdomen, the thorax, the larynx, the pharynx, the tongue, and the face depends. Though each of these organs has its peculiar functions, they must act synchronously, or in certain successions. If, then, their association be interrupted by an altered condition of any of the respective nerves or muscles, the emission of certain sounds and their articulation, becomes impeded.

Speech, then, is articulated voice; but the instant of time which intervenes between the formation of the sound in the larynx, and its articulation in the cavity of the mouth is so short, that it can scarcely be appreciated, hence the production of voice and speech appear as synchronous phenomena.

The perfection of speech depends :

1. On the development of the mind.

2. On the healthy state of the vocal and articulating apparatus.

3. On the right use of all the organs concerned in the production of voice and articulate sound.

The entire deprivation of speech may result from either of the following causes :

to the same extent as the consonants.* The proximate causes of defective vowel sounds, may have their seat either in the vocal apparatus, or in the oral canal. The original sounds may be deficient in quality, from an affection of the vocal ligaments, as in hoarseness: or the sounds may be altered in the buccal and nasal cavities, from defects or an improper use of the velum; in which cases the vowels are frequently aspirated. Enlargement of the tonsils,

1. From imbecility of mind, as in perfect idiocy.
2. From deafness, congenital or acquired, and
3. From serious defects in the organs of speech.

From the foregoing, will be easily understood the great variety of forms stammering and stuttering may assume.

The state technically called *Alalia* (*A*, priv.; *lalia*, speech), or muteism, does not now concern us, the subject of this treatise being *Dyslalia* (*Dys*, difficult; *lalia*, speech), which consists, either in the impossibility or difficulty of correctly forming and enunciating certain articulate sounds, or of properly conjoining the elementary sounds for the purposes of distinct utterance. *Dyslalia* thus embraces every species of defective utterance, each appearing under a variety of forms.

For a minute description of all the organs concerned in vocalisation and articulation, the reader is referred to the Author's work, *Philosophy of Voice and Speech*. Longman and Co., 1859.

* Dr. Wolf quotes the case of a little patient, who, he says, stuttered at no consonant excepting at the aspirate *h*, but all the vowels caused him great difficulties, specially the vowel *a*. On attempting to enunciate these sounds spasmodic contortions of the muscles of the face, neck, and the respiratory organs ensued, threatening suffocation. I have met with many similar cases in my own practice.

defective lips and teeth, may also influence the enunciation of the vowels. But the whole speech-apparatus may be in a healthy state, and yet the enunciation of the vowels may be faulty, from misemployment, or from defective association of the various organs upon which the proper articulation of the vowels depends. In some cases the faulty pronunciation may be traced to some defect in the organ of hearing.

Defective Enunciation of Consonants. *Consonantal Stammering* may, like that of the vowels, be the result of an organic affection, either of the vocal apparatus, or of the organs of articulation. When, for instance, the soft palate, either from existing apertures or inactivity of its muscles, cannot close the posterior nares, so that the oral canal may be separated from the nasal tube, speech acquires a nasal timbre, and the articulation of many consonants is variously affected. *B* and *p* then assume the sound of an indistinct *m*; *d* and *t* sound somewhat like *n*; and *g* and *k* like *ng*. The action of the velum during speech has been described by Sir Charles Bell.*

* "In a person whom I had the pain of attending long after the bones of the face were lost, and in whom I could look down behind the palate, I saw the operation of the *velum palati*. During speech it was in constant motion; and when the person pronounced the explosive letters, the velum rose convex, so as to interrupt the

The Chief Causes of Stammering.—The variety of defects which constitute stammering result either from actual defective organisation or from functional disorder. Among organic defects may be enumerated: hare-lip, cleft-palate, abnormal length and thickness of the uvula, inflammation and enlargement of the tonsils, abnormal size and tumours of the tongue, tumours in the buccal cavity, want or defective position of the teeth, etc.

Dr. Ashburner mentions a very curious case of a boy who, though not deaf, could not speak. This he attributed to the smallness of the jaws, which taking at length a sudden start in growth by which the pressure was taken off from the dental nerves, the organs became free, and the boy learned to speak. Considering that the teeth play but a subordinate part in articulating—for all the speech sounds, including even the dentals, may be pronounced without their aid, as is the case in toothless age—it is certainly not a little singular that the mere pressure on the dental nerves should produce such an effect. It is very possible that in this case the motions of the lower jaw and of the tongue were impeded; but even

ascent of breath in that direction; and as the lips parted, or the tongue separated from the teeth or palate, the velum recoiled forcibly."

then, it is not easy to account for the fact that the child never attempted to articulate, however imperfectly.

When the organs are in a normal condition, and the person is unable to place them in a proper position to produce the desired effect, the affection is said to be *functional*. Debility, paralysis, spasms of the glottis, lips, etc., owing to a central or local affection of the nerves, habit, imitation, etc., may all more or less tend to produce stammering.

From these observations it may be inferred that stammering is either *idiopathic*, when arising from causes *within* the vocal and articulating apparatus; or it is *symptomatic*, when arising from cerebral irritation, paralysis, general debility, intoxication, etc. Children stammer, partly from imperfect development of the organs of speech, want of control, deficiency of ideas, and imitation, or in consequence of cerebral and abdominal affections. The stammering, or rather faltering, of old people chiefly arises from local or general debility. The cold stage of fever, intoxication, loss of blood, narcotics, may all produce stammering. Stammering is *idiopathic* and permanent in *imbecility*, when the slowness of thought keeps pace with the imperfection of speech. It may also be *transitorily* produced by sudden emotions.

Stuttering.—The main feature of stuttering consists in the difficulty in conjoining and fluently enunciating syllables, words, and sentences. The interruptions are more or less frequent, the syllables or words being thrown out in jerks. Hence the speech of stutterers has been by Shakespeare* (and by Plutarch before him) aptly compared to the pouring out of water from a bottle with a long neck, which either flows in a stream, or is intermittent; the patient in the former case, feeling that his glottis is open, endeavours to pour out as many words as possible before a new interruption takes place. The stoppage of the sound may take place at the second or third syllable of a word, but occurs more frequently at the first, and the usual consequence is, that the beginning of a syllable is several times repeated until the difficulty is conquered. The stut-

* “I pr’thee, tell me, who is it? quickly, and speak apace. I would thou could’st stammer, that thou might’st pour this concealed man out of thy mouth, as wine comes out of a narrow mouth’d bottle, either too much at once, or none at all. I pr’ythee take the cork out of thy mouth, that I may drink thy tidings.”—*As You Like it.* Act iii, Sc. 2.

Lord Campbell pleaded that Shakespeare was a lawyer, from his great legal knowledge; Dr. Bucknill, that he was a medical man, from his acquaintance with medicine; and a host of other professions have put in their plea. We would now also put in a claim on Shakespeare as a curer of stammering, from his intimate acquaintance with impediments in speech!

terer, unless he be at the same time a stammerer, which is now and then the case, has generally no difficulty in articulating the *elementary* sounds, in which respect he differs from the latter; it is in the combination of these sounds in the formation of words and sentences that his infirmity consists.

Stuttering by no means obtains to the same degree in all persons. In the most simple cases the affection is but little perceptible; the person speaks nearly without interruption, and merely hesitates at certain consonants, vowels, or syllables. In the second degree, the impediment is much more marked and unpleasant to the listener. The *repetitions* are more frequent, and though the discourse is nearly continuous, it is effected by manifest efforts, and accompanied with *gesticulations*, by the subjects dwelling sometimes longer than usual upon one syllable or word, and uttering the rest of the sentence with greater rapidity, as if they distrusted themselves.

Sometimes the efforts of the patient both in stammering and stuttering (but more especially the latter) are truly formidable. The tongue flies about the mouth, the face reddens, the countenance is distorted, even the eyes partake of the general commotion; most of the respiratory and vocal muscles are thrown into a spasmodic action, which extends to the

limbs. The patient fumes and stamps, sometimes pinching and hitting himself; frequently he feels a choking sensation, and the perspiration flows from his forehead; but despite of all his efforts, he can only produce some discordant and inarticulate sounds.* The whole of these distressing phenomena are frequently the effect of the slightest of all causes—the effort to articulate a difficult syllable; for the paroxysm can be instantly checked by the patient relaxing his effort.†

Vowel Stuttering.—There prevails generally a be-

* The following is a curious account of the stuttering of Louis XIII:—“The king assured me of a reciprocal affection to the king my master, and of my particular welcome to his court; his words were never many, as being so extreme a stutterer, that he would sometimes hold his tongue out of his mouth a good while before he could speak so much as one word; he had besides a double row of teeth, and was observed seldom or never to spit or blow his nose, or to sweat much, though he were very laborious and almost indefatigable in his exercises of hunting and hawking, to which he was much addicted.”—*Life of Lord Herbert of Cherbury*, 1826.

† Dr. Semmola (*Opere Minori*. Nap. 1845), states a case of a young water-carrier, who had not the aspect of disease. On asking him what was the matter, he was seized by the most terrible convulsions, which continued till he brought out the word, and returned on his attempting to speak. But when silent they immediately ceased. The affection had come on a few days ago from a fright. Dr. Semmola considered it a *hypersthenia cerebralis*, bled and leached him at the temples. After ten hours he was able to speak well.

lief that stuttering only occurs when the initial sound is a consonant; this is an error, for the affection may extend to all the sounds, vowels as well as consonants. In order to understand this, we must bear in mind, that though a word may commence with a vowel, it is still requisite that the glottis should be previously narrowed or closed, for the purpose of placing the vocal cords in a proper position to vibrate. In normal speech the contraction lasts but an instant, being immediately followed by the requisite vibration of the ligaments. In certain conditions, however, the contraction of the glottis lasts longer than usual, and the vowel sound is stopped in the glottis. This state may be merely transitory, the result of some sudden powerful emotion or passion. Tears, grief, joy, anger, all may take away the power of utterance. The greatest singers are frequently, on making their first appearance before an audience, upon whose approval their fate depends, unable to utter a single note. The vowels *u* (as heard in *rude*), and *o*, seem to offer to many stutterers greater difficulties than *e* (as in *ebb*), or *i* (as in *it*).

Consonantal Stuttering.—Though stuttering, as has been shown, extends also to the vowels, yet it chiefly occurs at the utterance of the mute and explosive

consonants and their medials, as at *p, t, k, b, d, g*, etc. The aspirated and continuous sounds, as *f, w, s*, etc., offer much less difficulties, as the oral canal is then not so completely closed as in the explosives.

Let me not be understood to join in the common error—first, that it is on account of the difficulty of articulating the explosives that stuttering occurs; and secondly, that stuttering begins *during* the enunciation of these consonants. The articulation of the explosives and mutes is, *per se*, not more difficult than that of the other consonants. The very first letters, indeed, which the child learns to utter are *m, p, d, b*, papa, mamma, dada, etc. Again, the stutterer (not the stammerer) has no difficulty in articulating the consonants individually, for we hear him repeat them in rapid succession, *b, b, b, b, t, t, t*, and so on. What is it then that distresses the stutterer? Mr. Bausman says that, “It is a constant phenomenon that stutterers hesitate only at the first letters of a word, so that when they have mastered the initial sound, the rest of the word follows easily, or, in other words, there is no stuttering in the middle of a word.”* This is certainly not the case. The initial sound is not the difficulty of the stutterer. It is the

* *Das Geheimniss Stotternde, &c.*, G. F. Otto, 1832.

enunciation of the *following* sound, be it a vowel or a consonant, which is his difficulty; he cannot *join* them, and it is this which makes him repeat the explosive, until the conjunction is effected. It is, therefore, during the transition from one mechanism to another that the impediment chiefly takes place.

A syllable or a word may commence with a vowel followed by a consonant, or it may commence with a consonant followed by a vowel. At first sight, it may appear that it matters very little whether the vowel or the consonant is the initial sound. A little reflection will show that it makes all the difference. In commencing a syllable with a vowel, the oral canal is more widely opened than when it commences with a consonant. In forming the syllables *ap*, *abb*, *ott*, etc., all that is necessary is to close the buccal cavity to produce the consonant, the change in the mouth being easily adjusted, and few stutterers (unless they are also vowel stutterers) find any difficulty in enunciating such syllables. But when a consonant commences the syllable, the mechanism is reversed, the oral canal must be opened to produce the vowel; the articulating organs must be released from the state of contraction, and the vowel must overcome the consonant. This it may appear could be easily effected, if it were merely requisite to give

free vent to the interrupted air current by opening the mouth. But it must be considered that in the articulation of the explosives there is in fact a double obstruction of the sound, not merely in the mouth, but also in the glottis, as in their enunciation the thorax is fixed, which is not necessary in the other consonants. Both these obstructions must not only be suddenly removed, but, (and which is the difficulty) there must be at the same moment when the oral canal is opened in front and behind, a sound produced in the larynx by forcing the air from the lungs; that is to say, that during the formation of the explosive, the vowel must be ready to follow and to overcome it. If this cannot be effected, the muscles which close the oral canal may continue in a state of contraction, and the formation of the syllable is retarded until repeated attempts prove more successful in liberating the articulating organs. It is the disturbed relation and the antagonism between the vocal and the articulating mechanism which give rise to stuttering; the spasmodic condition of the glottis, which only takes place in the explosive sounds, is the *effect* and not the *cause* of the disturbed relation. Both Sauvages and Joseph Frank* contend that the

* Nosol. method., 1772. Praxeos Medicæ Universæ præcepta. Lipsia, 1811-23.

gutturals *g* and *k* offer the greatest impediment to the stutterer, and that the chief cause is the difficulty of moving the velum, the uvula, and the root of the tongue. This is not invariably the case. Some stutterers pronounce these consonants in various combinations easily enough, but stutter at the dentals and labials, *p*, *b*, *t*, *d*. There are again some in whom the impediment varies; they hesitate one day at the gutturals, another day at the labials, or may be, at the dentals, depending, no doubt, in most cases on their combinations with the succeeding sounds.

It will be seen that there is a sensible difference between the meaning I attach to the use of the words stammering and stuttering.* The same difference,

* Dr. Klencke has given the following distinctions between stammering and stuttering:—

Stammering.—1. The stammerer speaks commonly better when, by being observed, he watches over himself, and only shows anxiety under particular conditions.

2. The stammerer betrays his fault both in recitation, singing, and rhythmical speaking.

3. The stammerer never exhibits any irritation of the organs of respiration and circulation, nor nervous or spasmodic phenomena, and may be able by the power of the will to overcome his fault, either partially or entirely.

4. The stammerer has not the least difficulty in the formation of the voice, he betrays his fault both in speaking aloud and in whispering, and the connection of his faulty consonant with any vowel is subject to no impediment.

in fact, as between the words articulation and pronunciation. Although stammering and stuttering are different, they are occasionally combined in one case, and hence the confusion which has arisen. Stammering is like a horse that will not or cannot move, while stuttering is like a stumbling animal. Persons gifted with great volubility, when abruptly charged with some real or pretended delinquency, may only be able to *stammer* out an excuse.

Principal Causes of Stuttering.—Among the exciting causes of stuttering may be enumerated: affections of the brain and spinal cord, the abdominal canal, abnormal irritability of the nervous system,

Stuttering.—1. The stammerer begins to stutter more violently when he is observed, when he shows spasmodic anxiety and oppression.

2. The stammerer does not betray his infirmity in slow recitation, or singing, or rhythmical speaking.

3. The stammerer exhibits an irritation in his respiratory organs and determination of blood to the chest and head, which increases in proportion as he endeavours to overcome the impediment, when nervous and spasmodic phenomena show themselves in the region of the chest, neck, and head.

4. The stammerer can produce all consonants in a whispering mode, but stutters immediately when he uses the voice and connects the consonant with a vowel; the voice fails him from the wrong action of the mechanism of the respiratory and vocal muscles.

solitary vices, spermatorrhœa, mental emotions, mimicry, and involuntary imitation. The proximate cause of stuttering is, in most cases, the abnormal action of the phonetic and respiratory apparatus, and not, like stammering, the result either of organic defects, or the debility of the articulating organs.

CHAPTER II.

EXTERNAL* INFLUENCES ON ARTICULATION.

THE doctrine of hereditary transmission both of corporeal and mental qualities from parent to offspring, as shown in external resemblance and similarity of internal organization, has at all times met with much favour. But while there are some who assert that, excepting acute fevers, nearly all affections are transmitted by the parent to the child, there are some eminent physiologists who totally dissent from this doctrine, both as a matter of fact and theory. Dr. Louis goes even so far as to consider variation the rule; and conformity the exception. Thus, with regard to temperament, he observes, that children, born of the same parents, nearly always exhibit different temperaments; some are of a bilious, others of

* I have used this word as the most popular term which at all conveys the meaning intended. Extrinsic is, however, a more suitable word.

a sanguine, or a phlegmatic temperament. Twins frequently differ in this respect. Even the famous Hungarian sisters who lived twenty-two years, are described as having been most dissimilar in temperament and dispositions, although they were, like the Siamese twins, joined together, and had a communicating system of blood vessels.

In accordance with this doctrine, impediments of speech have also generally been considered as hereditary affections, and as the male is believed to influence more the external resemblance, and the female more the internal organism, when hereditary on the female side, it is said to spread upon a greater number of a family. Certain it is, that many stammerers and stutterers consider their affection as an inheritance, and account for it that they have a parent or collateral relation labouring under the same infirmity. It is equally true, that many instances can be adduced where the defect has descended for several generations, and I have, myself, had under my care several children thus afflicted out of one family where the parents stuttered.

Dr. Lucas* assumes that not merely external resemblance, and internal organization, but moral and

* *Traité Philosoph. et Physiol. de l'herédité naturelle.* S. Lucas, Paris, 1847.

intellectual aptitudes are directly transmitted, and gives the following instance of hereditary loquacity. A servant girl talked so incessantly, either to others or to herself, that her master found it necessary to dismiss her, when she exclaimed, “But, sir, it is not my fault; it is not my fault; it comes to me from my father, who tormented my mother in the same way, and he had a brother who was just like me.”

Now without at all denying the transmission even of organic defects—the statistics of deaf-muteism* having placed this question beyond any doubt, I still contend that stuttering as such, is *not* an inheritance, not being, as deaf-muteism, the result of defective organization. All that can be safely asserted amounts to this: that as nervous affections and a scrofulous constitution are more or less transmissible, hereditary influence may be at work in causing a predisposition to contract the habit of stuttering, whenever the subject is placed in certain circumstances favourable for its development.

Influence of Temperature. That sudden variations of temperature, changes of the season, extreme heat or cold, have some influence (as in most nervous affections), in either increasing or diminishing the infirmity, simply indicate that stuttering is a func-

* See *Philosophy of Voice and Speech*, chap. xix.

tional disorder. Colombat asserts, that stuttering increases in winter and summer, and diminishes in autumn and spring, provided they are temperate and moist, and that dry air in frost and great heat act inversely.* This is opposed to the experience and practice of Mercurialis, who would confine the patient in a dry and heated atmosphere. The affection is also said to be more sensible in the morning than in the evening. Dr. Becquerel said his stuttering was worse in the morning, and that he believed this was generally the case. According to my own experience, all these assumptions are more fanciful than real. No certain rules can be laid down in this respect. The dry or damp state of the atmosphere, its electrical condition, and the changes of the season, influence stuttering according to the idiosyncrasy of the subject, so that the same external influences produce among a number of stutterers collected under one roof, opposite effects.

Temperament.—That the majority of stutterers belong to what are termed the sanguine and nervous temperament is true enough: but it is an error to

* “*Ætna was very furious when we passed, as she useth to be sometimes more than others, specially when the wind is southward, for then she is more subject to belching out flakes of fire, as stutterers use to stammer more when the wind is in that hole.*”
—*Howel's Letters*, 1665.

suppose that they are exclusively of this class. All temperaments yield their quota, and some of the more severe cases which I had under my care were subjects of a lymphatic temperament, who, though less tractable than those of any other temperament, rarely relapse after being once cured. The sanguine temperament is more liable to stuttering, and the lymphatic to stammering.

Psychical Influences. Every passing emotion influences more or less the action of the heart and the respiratory functions, either in accelerating or retarding them, and as the production of voice is intimately connected with the act of respiration, it is not surprising that the vocal and articulating apparatus is instantly affected by the state of our feelings and thoughts. If, on the one hand, slight emotions increase the infirmity of stuttering, violent emotions, wrath, fear, danger, or severe injury, may remove it by the excitation of cerebral action ; the motor agents of the articulation receive a new impulse and vigour, and the person who could scarcely produce a word, expresses himself with remarkable energy. On the other hand, voice and speech may be suddenly lost under the influence of powerful emotions. The following cases, presenting opposite effects, may serve as illustrations :—

In January, 1833, three gentlemen, MM. Dub... Mart... and Ou..., stammerers to a painful degree, went to the French Academy of Sciences, for the purpose of being examined before a commission prior to the commencement of their treatment under Mr. Colombe, then a candidate for the Monthyon prize. On leaving the Academy, they entered a tobacconist's shop to purchase some cigars. Mr. Dub..., who was the least timid, commenced his address, "Dooo do doo donnez moi des ci des ci des cigarres." It so happened that the tobacconist was himself a terrible stammerer; he was thus by no means surprised to have found a comrade in affliction, but he was certainly far from imagining that the other two were similarly affected. When, therefore, the tobacconist asked "de-dede-de-dede-quel quel qua-qua-qu qua qualité vou-vou-voulez vous les-les-cigarres?" and all three began horribly to stammer, he flew into a violent rage, thinking that they merely came to have a lark. He therefore seized a stick to belabour them, whilst he swore at, and threatened them in the most energetic terms, without the least impediment in his speech. Fortunately the arrival of Mr. Colombe put an end to the scene, by informing the enraged tobacconist of the real facts of the case.*

* See also the *Unspeakable; or Life and Adventures of a Stammerer.*

The following was the sad result of a practical joke, and should serve as a warning to all young gentlemen who delight in playing tricks on their companions.

"An apprentice of this city (Lyons), who had been out catching frogs, brought several home alive, and to play his brother a trick, put three of them in his bed. In the middle of the night the frogs, finding the bed too warm, tried to get out, and one of them happened to crawl on the lad's face and awoke him. Feeling something cold and clammy on his cheek, the lad was dreadfully frightened, and leaped out of bed, calling for help. When his parents came they found him lying on the floor in strong convulsions, which were, however, relieved by proper treatment, and the boy has since resumed his usual occupation, but has lost the faculty of speech."*

My note-book is filled with such instances. One of the most severe cases of stuttering I ever saw, was caused by the parent stamping and calling out in a loud voice, "silence." His son, aged eight, who was running across the room, fell on hearing his father's voice. When he got up, he began stuttering very violently. Another pupil stated that his infirmity

* From the *Courrier de Lyon*, Feb. 1860.

was caused by the fright of being run after by an Irish tramp.

Esquirol relates that a person who by accident had lost his power of speech, suffered for years patiently the scoldings of his wife. One day, being more than usually ill-treated, he became so much enraged, that his tongue, hitherto paralysed, recovered suddenly its mobility, so that henceforth he repaid his Xanthippe with compound interest.

“A shoemaker in Domschutz, near Torgau, named Grühl, had a son nineteen years of age, who had lost his voice when he was ten years old. In the night before last Christmas the young man had a vision, which commanded him to join in the responses on Christmas day. From fear the young man had hid himself under his bed covering, and fell into a profuse perspiration. The next day he was completely cured.”*

A woman in the south of France, who had lost her speech from sleeping with her head uncovered in the sun, recovered it suddenly two years afterwards when her house was on fire.

Dr. Panthel, of Limburg, reports the following singular case.†

* From the *Cologne Gazette*, an Extract from the *Magdeburg Journal*.

† *Deutsche Klinik*, No. 40.

A peasant boy, aged twelve, followed his father to the grave. During the interment he had a fit and became insensible, in which state he was carried home. He recovered after half an hour, apparently physically and mentally sound, but he was unable to produce a single sound. Dr. Panthel saw the patient on the following day still unable to speak. He performed, as he was bid, all requisite motions of tongue and lips, neither deglutition nor respiration seemed affected, but at every attempt to speak, mouth, tongue, and lower jaw remained immovable. During these attempts there was neither dyspnoea, constriction, nor determination of blood towards the head, but Dr. Panthel observed that the large laryngeal muscles were in a constant vibratory condition. These visible muscular contractions lasted as long as the boy attempted to speak, and immediately ceased when he left off trying. When Dr. Panthel compressed the above muscles the spasm ceased, and the boy could articulate for so long only as the compression continued. This incapacity to articulate continued for three days, during which time the above experiment was frequently repeated with the same success. On the fourth day the boy recovered his speech. After an interval of a fortnight the affection returned for two days, when it ceased. After the lapse of a

few weeks more the affection again returned from some emotion, this time it only continued for a few hours. The boy subsequently enjoyed perfect health.

Herodotus gives the following account of the son of Croesus :—

“ Croesus had a son, who was a fine youth, but dumb. Everything had been done for him by his father. He also sent to Delphi to consult the oracle, and Pythia answered as follows :—‘ Lydian, though a powerful prince, thou art yet of a foolish heart. Expect not to hear in thy palace the desired voice of thy son, that will be of no use. Know he will first speak on the most unfortunate day.’ When now the city (Sardis) was conquered, one of the Persians approached Croesus to slay him, for he knew him not. And when Croesus perceived it, he was careless about being struck down, having been so unfortunate. But when his young son saw the intention of the Persians to kill his father, fear and anxiety released his voice, and he spoke : ‘ Man, kill not Croesus !’ This was the first word which he spoke, and he continued to speak all his life.”

Dr. Todd terms such a loss of speech, met with in patients subjected to some powerful emotion, “ emotional paralysis.” It occurs, he says, in men of hypochondriacal habits, and in women too. The

power of speech returning usually in a few days, and rapidly after the patient has gained the ability of pronouncing "Yes" or "No."

There are many curious psychological phenomena connected with stammering which deserve record. The following is one of these instances of mental influence. It is by no means an exceptional or uncommon case.

W. G. (aged 19) writes : "The case you described as Mr. R.'s approaches nearest my own ; for instance, it says that 'If he had once stammered to a person, he could never speak plainly to him again.' I have, frequently, when conversing with persons for the first time, not stammered at all, or very slightly, but when once I find that they know me to be a stutterer, I never speak plainly to them any more. If alone, I could read all the paragraph relating to Mr. R.'s case without hesitation, but place a person before me, and I could not read a single sentence without stammering very badly. And again, when I know that I must have an interview with any person, I am in a state of the most nervous excitement until it is past. Many are the kind invitations I have declined, simply because of my impediment, when, God knows how dearly I should have loved to have joined the merry circle of my companions and friends."

Dr. Klencke well observes: "Whatever form stuttering may exhibit, and from whatever cause it may have arisen, it always exercises upon the whole individual a pernicious influence, and gives a specific expression to the mind and character. The abnormal mode of expression re-acts upon the mode of thinking, the search for easy words, the incapacity of finishing a sentence, gives to thought an illogical flighty expression, and impresses upon it the character of uncertainty. The habit of speaking and thinking only by fragments gives to the character of the stutterer that capricious disposition which renders it difficult for him to persevere. I at least have as yet had no stutterer in my institution who had exhibited firmness of purpose and perseverance. This explains why stutterers dislike a rational consequent mode of treatment, that they gladly embrace the opportunities of travelling stutter-doctors and charlatans, provided the cure can be easily effected, and I have even known intelligent persons so affected who have paid dearly for some gargle water which a medical swindler sold for the cure of stuttering."

Influence of Imitation.—The tendency to imitate the actions of others is so intimately connected with the nature of man, that Aristotle has, by way of distinction, called him an imitating animal. I do not speak

here of voluntary and deliberate imitation, but of that almost irresistible propensity to catch and to repeat the expressions and actions of other human beings with whom we come in contact. This tendency exhibits itself in its greatest intensity in childhood and early youth. Long before children can appreciate our motives, they imitate our actions. The faculty is instinctive, both in man and many animals, and differs from the power of voluntary imitation, possessed by man in the highest degree, that it is a deliberate act, determined by various motives.

The most familiar illustration of involuntary imitation is the irresistible inclination to imitate the act of yawning; which is so little under the influence of the will, that sometimes the more we resist the execution of the movement, the greater is the desire to effect it. The history of epidemics, religious revivals, etc., and the medical records, afford the most conclusive proofs of the infectious nature of emotions, and their physical manifestations, convulsions, fits, etc.

The imitative propensity exhibits itself in earliest childhood, and nothing is more common than to see infants assume the gestures and habits of those by whom they are constantly surrounded. This susceptibility may, it is true, differ in various subjects in degree, but not in kind. There are, in fact, but few

irregular actions, manifested externally, which are not instinctively imitated by children. It is, therefore, beyond question that, like squinting, winking with the eyes, and many other habits, both stammering and stuttering arise, in most cases, from unconscious, or sometimes voluntary, imitation. Seeing, then, that the habit is so easily contracted, we are scarcely justified in considering it as an hereditary affection, even in such cases where one of the parents stammers. In by far the greater number of cases which came under my observation, I found that the evil was neither hereditary nor congenital, but could be traced to the prodigious influence of voluntary or involuntary imitation. One stammerer or stutterer in a family is quite sufficient to inoculate the rest; and so rapid is the contagion to a susceptible child, that I have had pupils who have contracted the habit by a single interview with a stutterer. I must here strongly warn all young persons against stammering either in mimicry, or for the baser purpose of deceiving their teachers, in order to avoid some task, as I have had pupils who have confessed their serious impediment to be the result of one of these practices. A clergyman of the Church of Scotland, who lately consulted me, writes to the following effect: "I was entirely free of it till I was five years

of age, when at that time of life there was a gentleman who was in the habit of occasionally frequenting my father's house, who indeed stammered very badly, and I distinctly remember one afternoon trying to imitate him, when unfortunately he heard me, and was very indignant, and so ashamed were my parents at my conduct, that after he had gone, I was taken to task and punished severely for it, and *ever since that night I have been afflicted with this most distressing malady.*"

I am in a condition to adduce numerous instances of this kind from my own experience, but I shall only add two illustrations, so graphically described by an eminent authority* on this as on other subjects. "I knew of a young man, who used, for his little brothers' and sisters' amusement, to act some stammering relation. One day he found that his acting had become grim earnest. He had set up a bad habit, and he was enslaved by it. He was utterly terrified; he looked on his sudden stammers (by a not absurd moral sequence) as a judgment from God for mocking an afflicted person; and suffered great misery of mind, till he was cured by a friend of mine, to whom I shall have occasion to refer hereafter.

* *The Irrationale of Speech.* By a Minute Philosopher.—*Fraser's Magazine*, July 1859.

"One of the most frightful stammers I ever knew began at seven years old, and could only be traced to the child's having watched the contortions of a stammering lawyer in a Court of Justice. But the child had a brain at once excited and weakened by a brain fever, and was of a painfully nervous temperament."

Remarks on Certain Received Opinions in Relation to Stammering and Stuttering.

1. *Persons do not stutter in singing.*—It is undeniable that stuttering obtains much less in singing. The simple reason is, that in singing, the breath is more regulated, the glottis is open, and the action of the vocal apparatus is not so much interrupted as in common speech, which requires a constant change in the position of the articulative organs. For a similar reason, though in a less degree, stuttering is not so appreciable in recitative as in declamation. Something analogous takes place in intoxication ; an inebriated man is sometimes able to run, but finds it rather a difficult matter to stand at ease or walk steadily. The same singular phenomena occur now and then in rheumatic and nervous affections. Gaubins cites the case of a man who could run, but not walk steadily ; and Astrié had a lady under his care who walked lame, but danced elegantly.

It is, however, not true that the above rule applies generally. I have had under my care subjects who also stutter in singing, which certainly renders the case more complicated.

2. *There is no Stuttering in Whispering.*—The reason why generally there is no stuttering in whispering is, that in that mode of utterance there is no necessity of a synchronous action between the muscles of the larynx and the oral canal, the breath being articulated without the participation of the vocal ligaments; but if the fault lies, as in a few cases it does, in the action of the articulating organs, there will be, and there is, stuttering in whispering, as I have frequently had occasion to convince myself.

3. *When alone, persons do not Stutter nearly as much as when in Company.*—Timidity, and the fear of stuttering, no doubt, in many instances increase the infirmity; hence, generally speaking, patients are more free in their elocution when reading by themselves; but such is not invariably the case. I have had many pupils who were far more affected with the infirmity when alone than when before company. The fear of rendering themselves ridiculous acts as a stimulant, strengthening the psychical element—the firm will to overcome the difficulty, and actually giving them,

for the time, more control over the disobedient organs.

The following is an extract from a description of a case of stammering in a pupil's own words. There are many who will doubtless recognise the truth of the description, with some modifications, from their own experience. He says that he can remember the time when he did not stammer. It gradually came on when a youth, and increased until the twentieth year, with periods of mitigation, during which time he says, "I spoke for weeks together with comparative ease, so that a casual stranger who conversed with me would be unaware of my having any impediment, though he might have noticed a certain hesitancy and discomposure in my manner." Coming to reside in London the stammering monthly increased, "till it has become almost painful to me to speak at all." He then continues:—

"Yet at the present time, as always since I remember, in private and alone, I can read and speak without stammering at all; and not only so, but in church can join in all the responses of the congregation without hesitation, my voice being borne along as it were by theirs; for if their voices suddenly were silenced, I should become perfectly speechless. (I have experienced this, when it has sometimes hap-

pened that they have finished their response before me.) I think, too, if I could persist in always using a most affected drawl in conversation, I should put a stop to the stammering; though I have often found that I have succeeded in various contrivances for a time, and until a certain consciousness that I must stammer affected me while practising them also, and I have stammered immediately. I have naturally a great 'tendency of words to the mouth,' and could, I think, but for my stammering, become an easy and ready public speaker. I am naturally of a most delicate constitution, with a tendency to pulmonary disease, at least that is my own impression. I attribute my stammering, I say, to the possession of a very sensitive and nervous organization, as much of the body as the mind, producing hesitation in the first place, and now, through time and habit, spasmodic contraction.

"It is clear to myself that, inasmuch as I can read and speak when alone, I ought to be able to do so publicly; but that I *cannot* do so, is the very secret of the complaint. I have tried self-cure, and failed from this very fact. Irresolution, incapability of persistence is the very cause, I fancy, not only of the stammerer's being a stammerer, but of his continuing to be one. A stammerer possessing a resolute and

indomitable will might cure himself; but for myself I feel the want of discipline outside as it were and beyond myself, a sense of reliance on some other's means of cure and not on my own; while at the same time I feel confident that a stern discipline as to speaking would in time bring such a control over the organs that stammering would entirely cease to be."

4. *Stutterers cannot stutter voluntarily when told to do so.*—I considered this alleged fact, mentioned by Dr. Warren, too curious to neglect verifying it. I am bound to say that in all cases I have yet tried there was not one in which the infirmity disappeared. The voluntary effort made by the patient simply effected, in most instances, an articulation different from his normal utterance, but no removal of the defect, which indeed generally only exists when the persons are trying to speak in their *natural* voice. Nearly all stutterers have no difficulty when they imitate any peculiar articulation; but this voluntary effort cannot be kept up, and it frequently happens that nervous stutterers are too timid to try such an expedient.

I have elsewhere remarked that much of the confusion which has arisen on this subject has been produced from the writers, who, being stammerers

themselves, have published their views and said *ex uno discere omnes*. Here has been a great cause of mystification. But the true cause of the difference of opinion as to the cause of stammering arises from the different sensations which it produces in different persons. Having been in the habit of questioning my pupils as to what they thought the proximate cause of the difficulty, it has not a little surprised me that so few have really any conception of the real seat of their infirmity. If a man stutters, for instance, from a misuse of the tongue, he will perhaps say that it is his breathing which is wrong, and *vice versa*. Indeed, as a rule, it may be asserted that the stammerer is the worst possible judge of the peculiarity of his own case. Why is this? The explanation which I believe to be satisfactory is, that continued misuse induces the nerves of that part to cease performing their functions. Unzer well says: * "Many external sensations become gradually weaker and weaker, and at last cease altogether, although the impression on the nerves still takes place. This diminution and destruction of external sensations by frequent repetition, is termed the *habit of external sensations*, and since it cannot be explained on mecha-

* *Principles of Physiology*. By John Augustus Unzer. Translated by Dr. Laycock. Sydenham Society, 1851, p. 48.

nical principles, it must be classed with the properties peculiar to animal bodies."

It matters little whether the impression on the nerves be external or internal, the same law obtains. We thus find that some nerves have nearly entirely lost their sensibility, while they retain the power of motion, just as we find that some nerves lose the power of motion while they retain their sensibility.

Another cause of difficulty is the fact that stuttering does not obtain to the same extent for long together. It varies with the health, spirits, and idiosyncrasies of the case. The organs of speech are like any other piece of machinery which is not always regulated with the same amount of power. Sometimes the better the health the worse the stutter, and *vice versa*. If the machinery is out of order, it goes better with more motor power or with less as the case may be. In machinery with different degrees of power, the disorder in the machinery may be removed from one part to another, so with defective speech.

CHAPTER III.

HISTORICAL REVIEW OF THE CHIEF THEORIES AND MODES
 OF TREATMENT FOR IMPEDIMENTS IN SPEECH,
 ARRANGED IN CHRONOLOGICAL ORDER.

THE earliest mention of defective utterance we find in the Scriptures.

“I am slow of speech and of a slow tongue.”*

“And the tongue of stammerers shall speak readily and plain.”†

“And the string of his tongue was loosed, and he spake plain.”‡

The information we derive from the writings of the Greeks and Romans in relation to the physiology and pathology of dyslalia is very scanty, which is the

* HEBREW.—Kebad peh kebad loshun anochi. GREEK SEPT.—Ischnophonos kai bradyglossos ego eimi. LATIN VULG.—Impeditioris et tardioris lingue sum. EXOD., chap. iv, 10.

† HEBREW.—Loshun elgim. GREEK SEPT.—Kai ai glossai ai psellizousai. LATIN VULG.—Et lingua balborum ISAIAH, chap. xxxi, 4.

‡ ST. MARK, chap. vii, 35.

more remarkable, as oratory then paved the way to the highest offices of the state.

The following extracts from the works of the ancients, contain some of the principal passages referring to the subject of disorders of the voice and speech. I have considered it advisable to give the Greek and Latin terms in notes, in order to exhibit the meaning which the respective authors and translators, apparently, attached to the expressions used. I may also here observe that in presenting a panoramic view of the principal theories and remedies proposed, the reader will not fail to gain a pretty correct idea of the gradual advance which has been made in the treatment of stammering from the earliest time up to the present day.

HERODOTUS (484 B.C.) says that the Therean Battos,* who had been a stutterer and a stammerer† from his youth, consulted the oracle at Delphi. The oracle said: "Battos, thou comest on account of thy speech, but King Phœbus Apollo sends thee to Libya, in the land of sheep to dwell."

After having founded the colony Cyrene, he was, according to Pausanias, cured by the unexpected

* The term *battarismos* is, according to some, derived from Battos.

† *Ischnophonos kai traulos.*

sight of a lion. Herodotus also observes that *Battos* meant, in the African language, a king.

ARISTOTLE (384 B.C.) says: “The tongue is either broad or narrow, or of a medium shape, which latter is the best for distinctness; or it is free or tied, as in those that stammer and stutter.*

“An equable and broad tongue is also convenient for the formation of letters, and the purpose of speech; for, being such and free, it is eminently capable of being dilated and contracted in a variety of manners. This is evident in all such persons in which the tongue is not sufficiently free, for they stammer and stutter.”†

“Stammering,‡ therefore, is the inability of articulating a certain letter; but stuttering§ is the omission of some letter or syllable; and hesitation|| is the inability of joining one syllable with another. All this arises from debility, for the tongue is not obedient to the will. Intoxicated persons, and old men, are similarly affected, but in a lesser degree.”

“Why are those who hesitate in speaking melan-

* Gr.—*Tois psellois kai tois trauloiſ*. LAT.—*Qualis blæſorium et balborum*. HIST. AN., lib. i, cap. ii.

† Gr.—*Psellizontai gar kai traulizousi*. LAT.—*Blæſi enim et balbi sunt*. DE PART. AN., lib. ii, cap. xvii.

‡ Gr.—*Traulotes*. LAT.—*Blæſitas*. § *Psellotes*.

|| *Ischnophonia*.

choly ?* Is it because that to follow the imagination rapidly is to be melancholy? Such, however, is the case with those that hesitate in speech, for in them the impulse to speak precedes the power, in consequence of the mind rapidly following that which is presented to it. This is also the case with those that stammer, for in these the tongue is too slow to keep pace with the imagination."

HIPPOCRATES (370 B.C.) says :† The persons who have impediments in their speech‡ are freed by varices; the impediment remains if no varices appear... Those who are tall, bald, stammer§ and hesitate in their speech,|| are usually good. A stammerer,¶ bald, and hesitating in his speech,** who has a hairy body, is subject to atrabilious diseases, as also those who repeat certain syllables, striking various times with their tongue, are not masters of their lips. Some suppuration must be effected if they are to acquire freedom of speech... Those who have a large head, small eyes, are, if they stammer, subject to anger... Stammerers†† and clutterers‡‡

* Ischnophonoi. LAT.—Qui lingua hæsitant.

† Preepta 6; Aphor. 6, 32; Epid. 2, 5; De Judicat. 6.

‡ GR. Ischnophoninen. LAT. Ex lingue hæsitanter. § Trauloi.

|| Ischnophonoi. Some translate *lingue hæsitanter*, others *gracili voce* (a thin falsetto voice).

¶ Traulos.

** Ischnophonos.

†† Oi trauloi.

‡‡ Tachyglossoi; lingue volubilitate.

are much subject to bile. Who has a small head will neither be bald nor stammer, unless he has blue eyes."

Hippocrates also observes that the infirmity is partly owing to an affection of the ears, and partly that the speaker, before delivering his words, passes to other thoughts and expressions. He says: "In gouty persons, tumours are observed under the tongue, containing *calculi*, interfering with articulation."

PLUTARCH (A.D. 66) refers to the defect of speech which affected the prince of orators in the following terms.

"Demosthenes, in his first address to the people, was laughed at and interrupted by their clamour; for the violence of his manner threw him into a confusion of periods and a distortion of his arguments. He had, besides, a weakness and a stammering in his voice,* which caused such a distraction in his discourse, that it was difficult for the audience to understand him. At last, on his quitting the assembly, Eunomos the Triasian, a man now extremely old, found him wandering in a dejected condition in the

* Gr.—Kai phones astheneia, kai glottes asapheia, pneumatos kolobotes. LAT.—Laboravit vero etiam vocis exilitate, lingua in-explanata, spiritus angustia. *Plut. Vit. parall.*

Piræus, and took on him to set him right. ‘You,’ said he, ‘have a manner of speaking much like Pericles, and yet you lose yourself out of mere timidity and cowardice. You neither bear up against the tumult of a popular audience, nor prepare your body by exercise for the labour of the rostrum.’”

Another time, we are told, when his speeches had been ill-received, he went home with his head covered, and in the greatest distress. Satyrus, the actor, who was an acquaintance, followed him. Demosthenes lamented that though he was the most painstaking of all the orators, yet could he find no favour with the people. “You speak truly,” replied Satyrus, “but I will soon provide a remedy, if you will recite to me some speech in Euripides or Sophocles.” When Demosthenes had finished, Satyrus repeated the same speech, with such propriety of action, and so much in character, that it seemed quite a different passage. Demosthenes now understood, how much grace and dignity of action add to the best oration, and he thought it of small matter to compose and premeditate, if the pronunciation and propriety of gesture were not attended to. On this he built himself a subterraneous study, which remained in our times. Thither he repaired every day to form his action and exercise his voice; and he

would stay there for two or three months together, shaving one side of his head, that the shame of appearing in that condition should keep him in. Demetrius, the Phalerian, gives an account of the remedies he applied to his personal defects, and he says he had it from Demosthenes in his old age. The hesitation and stammering he corrected by practising to speak with pebbles in his mouth, and he strengthened his voice by running or walking up hill, and pronouncing some passage in an oration or poem during the difficulty of breath which that caused. He had, moreover, a looking-glass in his room, before which he declaimed to adjust his motions.

CELsus* says, “When the tongue is paralysed, either from a vice of the organ, or in consequence of another disease, and when the patient cannot articulate, gargles should be administered, of a decoction of thyme, hyssop, or pennyroyal; he should drink water, and the head, the neck, mouth, and the part below the chin be well rubbed. The tongue should be rubbed with lazerwort, and he should chew pungent substances, such as mustard, garlick, onions, and make every effort to articulate. He must exercise himself to retain his breath, wash the head with cold water, eat horse-radish, and then vomit.”

* *Celsus de Resolutione Linguæ.* Died in the first century of our era.

GALEN* appears to refer stammering, to an *internperies humida*. Intoxicated persons stammer, as the brain is too much moistened, and consequently the instruments which move the tongue, and the tongue itself. And again, that *ischnophonia*,† or stuttering, is owing to the debility of the muscles of the tongue from the diminution of heat.

* Died about 200 A.D.—*De Locus Affectis*, 6.

† It would appear that translators and commentators have been much perplexed as to the proper meaning of *ischnophonia*, *psellismos*, *battarismos*, *traulismos*, etc. According to the etymology of the term *ischnophonia* (*ischnos*, weak, thin, and *phone* voice), is merely a defect of the voice and not of articulation. Yet Aristotle expressly says that *ischnophonia* consists in the disability of properly joining syllables and words, *i. e.*, stuttering. Again, Alcibiades is by Plutarch called *traulotes*, translated a *lisper*, but there is no evidence that he actually lisped; he had a defect in the enunciation of *r*. The word *balbus* of the Romans seems chiefly to have been applied to this defect, hence the surnames *Balbus*, *Balbinus*, *Balbilius*, etc., as some of the members of the family Sempronius were named. *Traulismos* seems, therefore, to mean what is now understood by rhotacism. *Psellismos* appears to have conveyed the meaning of lisping. “*Psellos*,” says Hesychius, (*factum a sono*—an onomatopœia), “is a person who cannot properly pronounce *s*—a *lisper*.” The Romans frequently called a lisper *blasus*; *blasitas* would, therefore, properly mean lisping. Then, again, there are *atypi*, derived either from *typoo*, I express, and the priv. *a*; or from *typto*, I strike; such persons cannot use the instrument of the tongue with sufficient expedition; and *ancyglossi*—tongue-tied, are those whose tongue is attached naturally by the *frænum*, or accidentally from indurated cicatrices, the result of ulcers.

MERCURIALIS* was the first author who wrote at all scientifically on defective utterance, after the classical authors before quoted.† According to the notions prevalent at his time, he considers a moist and cold intemperament as the chief cause of *balbuties*, comprehending both stammering and stuttering. He, therefore, forbids washing the head of stammering children, as that increases the moisture. In order to desiccate the head, he advises cauteries and blisters on the neck and behind the ears, which should be kept open for a considerable time. To dry the tongue, he recommends that it should be frequently rubbed with salt, honey, and specially with sage, which had proved singularly effective in curing the infirmity. The diet should be salty, spicy, and heating; no fish, no pastry, is to be allowed. Our author is, however, somewhat puzzled by finding that Hippocrates attributes stammering also to the dryness of the tongue. To reconcile this opinion with his own, Mercurialis is obliged to assume two species of *balbuties*—a natural

* *De puerorum morbis.* Ed. J. Groscesii, Francofurti, 1584.

† Hieronymus Mercurialis, born at Forli, 1530, and subsequently professor at Padua, Bologna, and Pisa, was the greatest physician of his time, and equally distinguished as a philosopher and antiquary. The Emperor Maximilian II, whom he cured of a fever, created him a count, and the Paduans erected a monument to his memory.

and an accidental. The natural is produced by humidity, the unnatural or accidental by dryness, and it is of this species that Hippocrates has spoken. Now, when balbuties proceeds from dryness, as after fevers or inflammation of the brain, we should direct our attention to the moistening of the tongue and the top of the spinal cord. Gargles with woman's milk are advisable ; the tongue must be frequently moistened with a decoction of marsh-mallow, to which sweet oil of almonds may be added, or some nymphæ leaves, by which the effect will be greater. The spinal cord, especially the cervical region, should be acted on by convenient liniments, apt to soften these parts. Impediments in speech are also produced by emotions, deep cogitations, prolonged watchfulness, sexual excesses, habitual intoxication, which by injuring the brain and the nerves, produce *balbuties*.

But, though a physician, Mercurialis does not seem to rely on his drugs and diet, for he expressly says : the body and the voice must be exercised as much as possible, and if there be anything which may benefit stammerers and stutterers, it is continued loud and distinct speaking. He supports this opinion by the example of Demosthenes.*

* Exercendum est corpus quantum fieri potest, præsertim vero exercenda est vox ; et si quid est, quod possit prodeesse balbis et

LORD BACON thus writes*—"Divers we see do stut. The cause may be, in most, the refrigeration of the tongue, whereby it is less apt to move. And, therefore, we see that naturals do generally stut: and we see that in those that stut, if they drink wine moderately, they stut less, because it heateth; and so we see, that they stut more in the first offer to speak than in continuance; because the tongue is by motion somewhat heated. In some, also, it may be, though rarely, the dryness of the tongue, which likewise maketh it less apt to move as well as cold; for it is an affect that cometh to some wise and great men; as it did unto Moses, who was *linguae præpedite*, and many stutters, we find, are very choleric men; choler inducing dryness in the tongue."

JOHANN CONRAD AMMAN, of Haarlem, to whose works† most subsequent writers are much indebted with regard to a correct theory of the formation of voice and articulate sounds, did not confine his prac-

hæsitantibus est continua locutio alta et clara. Demosthenes superavit balbutiem sola vocis exercitatione et contentione, nam dedit decem millia drachmorum Neoptolemo histrioni, qui illum docuit versus plures uno spiritu proferre, scilicet ut injectis in os calculis ascendens et currens versus continuo proferret.

* *Sylva Sylvarum, or Natural History.* First published 1627. Cent. iv. Sec. 336. By Lord Bacon.

† *Surdus loquens, &c.* Amst. 1692. *Dissertatio de loquela, &c.* Amst. 1700.

tice solely to the education of deaf-mutes, but extended it to remedy all kinds of defective utterance. Vicious articulation, he conceived, was in some cases owing to organic defect in some portion of the vocal and articulating apparatus, or to debility. The tongue, for instance, is sometimes so large that it fills nearly the whole buccal cavity, and materially interferes with the enunciation of many sounds. "I had," he says, "a Danish gentleman under my care, who, on account of the size of his tongue, articulated badly, and could by no effort of his own pronounce *ka*, but always said *ta*. Whilst placing my two fingers firmly on this organ, I desired him to enunciate *ka*. I well perceived that he tried to say *ta*, but as he could not approach the tongue to the teeth he was forced to enunciate *ka* to the admiration of the bystanders." The tongue may also be deficient in mobility, owing to its being fixed by the frænum, or the latter may be absent, in which case, the tongue lies at the bottom of the cavity. The uvula may be too voluminous, too small, or altogether wanting. The palate, the lips, the teeth, may also be in fault.

Amman distinguishes two species of stammering. The first he calls *Hottentotism*, which consists in modifying the sounds in such a manner that they become unintelligible. He quotes the case of a young lady

of Haarlem, who could scarcely pronounce any letter but *t*, and whose utterance was of course a ridiculous farrago of an interminable repetition of that sound. Amman cured this young lady within a space of three months, so that not a vestige of her defect remained, and her elocution became perfect. The second kind, Amman terms *Hesitantia*, consisting in a laborious repetition of the explosive sounds. During the efforts to produce them, the patient is frequently much agitated, the countenance becomes livid, and the features contorted. These kinds of defective utterance, he further observes, are not the result of organic defects, but originate in the contraction of a vicious habit, which in time becomes inveterate.

Want of space precludes the possibility of quoting from the works of any other author of this time. An enumeration of the principal treatises on the subject of defective utterance must therefore suffice.*

SAUVAGET places stammering among† diseases of which the chief symptom consists in debility.

CULLEN,§ and many subsequent authors have adopted the same opinion.

* *G. Schacher de Loquela*, Lipsia, 1696; *Küstner de Lingua sana et agra*, Altdorf, 1716; *Fick de Balbis*, Junia, 1725; *Bergen de Balbutientibus*, Franckf., 1756; *Reil de Vocis et Loquela vitiis*, etc.

† *Nosologia Methodica*, Amst., 1768.

‡ *Dyscinesia* (*dys*, difficult,—*kineo*, move). § *Synop. Nos. Med.*

JOSEPH FRANK* distinguishes *dysphonice*—affections of the voice, which may be symptomatic or primary, traumatic, catarrhal, &c., and *dyslaliae*—defects of the articulation. As regards the causes of stuttering, he enumerates (following Mercurialis), bad education, depraved habit, cerebral affections, sexual excesses, &c. In respect to the prognosis, he observes, that stuttering seems to diminish, and frequently ceases, with advancing age, but when inveterate it is an incurable evil. Dr. Frank seems in favour of a severe discipline in the treatment of stuttering, for he strongly recommends a good flogging,—a mode of cure with which, for reasons stated in the sequel, I certainly cannot agree.

JOSEPH WATSON published two volumes on the deaf and dumb,† in which he treats of stammering, and he makes the following very sensible observations on the cause and cure of defective speech :—

“These hesitations proceed from a sudden interruption or break in the connection of those sympathetic or linked (to use a plain word) muscular motions, that perform articulations in our ordinary discourse. This disseveration is not occasioned by

* *Præceos Medicæ Universæ Precepta*. Chap. ii. “*De vitiis vocis et loquelaæ.*” Joseph Frank.

† *Instruction of the Deaf and Dumb, &c.* By Joseph Watson, LL.D. Darton and Harvey, 1809, 2 vols. 8vo.

any defect in the organs concerned in the formation of the sound, for then it would operate uniformly; but by the influence which external objects or circumstances have on the mind. Fear, shame, or any other strong internal feeling, will, for the moment, produce faltering and hesitation in speech, even in those who do not habitually stammer. Agreeably to this, we find that persons of great nervous irritability and lively consciousness, are most liable to stammering. This sort of impediment is, in fact, a bad habit, founded upon this constitutional susceptibility."

After dilating on the importance of bringing persons afflicted to reason on the subject, he continues:

"Impress strongly on their understandings, and induce them continually to keep in view, that though we cannot explain *how* mind acts on animal fibre, yet experience proves that there exists in our frame, somewhere, a power, which we call will, whereby our muscular strength is put in motion or made quiescent:—that by this power we first learnt to do these things, which repetition has converted into habit; though we are now no longer conscious of an act of the will in performing them after we have willed to set about them. This may be exemplified by the acts of walking, running, speaking, writing,

fingering a musical instrument, &c., and a little consideration will serve to make it understood.

"It may be observed that musical instruments afford an apt illustration of the mechanism of speech. Instrumental music is harmony of sounds produced by forces purely mechanical; and speech is modulating of sounds produced by similar forces, but more perfect, by as much as nature exceeds art.

"The organs of speech are moved by muscles, which from the laws of the animal economy are the instruments of the will. But the frequent repetition of these motions so links or associates them that they seem to proceed by sympathy or habit; and we are conscious of an act of the will only at their commencement. Hence, anything that suddenly disengages them throws the whole into disorder—-involuntary or convulsive muscular motions take place—and instead of the habit of regular and voluntary motions, succeeding each other in a train, if these interruptions are frequent, a habit of hesitation and stammering is introduced. This may account for the origin and progress of the first sort of impediments in speech."

ITARD* anticipated some of the artificial appliances adopted by subsequent practitioners, as will appear

* *Journal Universel des Sciences Médicales.* Paris, 1817.

from the following passages. Itard says:—“ Some modern anatomical writers, instead of throwing a new light upon the subject, have rather withdrawn our attention from the real seat of the affection, as they considered stuttering as the consequence of organic defects. The phenomena which stuttering exhibits, make us suspect a spasmodic or tremulous action, and a debility of the muscles moving the tongue and the larynx. I have no doubt the affection is curable. The remedies must necessarily be adapted to the degree and duration of the disorder. It is not sufficient to make the pupil acquainted with the mechanism of articulation, and to repeat frequently the individual sounds, but they must be studied in all possible combinations. Some syllables are more easily pronounced, when preceded by one which places the tongue in a position favourable for its production ; whilst the enunciation of them will be more difficult if they follow a syllable not affording this advantage. A good deal also depends on the vowel with which the consonant is combined ; thus stutterers find less difficulty in articulating *co* than *ca*.

“ When stuttering increases and extends to a great number of individual sounds and syllables, it will be necessary by mechanical means to strengthen the organs of articulation, and to lessen their spasmodic

tendency. We must treat the muscles of the vocal and articulating organs like those of locomotion, and as dancing and fencing will render the latter more firm and flexible, so must the tongue and the lips be subjected to analogous exercises. I avail myself for this purpose of a small apparatus, which I place under the tongue.* The instrument is scarcely introduced, when we hear a confused, indistinct voice, but no stuttering. The most difficult syllables are articulated with some trouble, but they are not repeated. We must, however, not deprive the tongue of this mechanical support at too early a period, otherwise the defect will re-appear. The apparatus should be used for a very considerable time, and when, at meals and during the night, it is removed, the patient must strictly abstain from speaking. I cannot exactly say how long it should be worn, having only effected two cures by its agency. The first case was that of a young man, æt. twenty, who used the instrument for about eighteen months. The perseverance of the patient to subject himself to such an inconvenience for so long a period, was powerfully supported by the hope of meeting, after the removal

* The instrument consists of a gold or ivory fork placed in the concave centre of a short stalk, and applied by its convex surface to the cavity of the alveolar arch of the lower jaw.

of his infirmity, with a more favourable reception from a young lady to whom he was greatly attached. The cure was complete; but I have not been informed whether he met in another quarter with the success he so amply merited. The second case was that of a boy aged eleven, who wore the apparatus very reluctantly, and removed it whenever he could do so unobserved. I saw him much improved after he had used it for eight months, and I have reason to believe, though I lost sight of him, that he ultimately recovered."

Remarks.—Itard very justly denies stuttering as being the consequence of organic lesions. The main defect of his theory and practice consists in having placed the cause of the evil too exclusively in the articulating organs, and attempted to remove the misuse by such unnatural appliances. It is, therefore, not surprising that even by his own account, he only succeeded by means of his instrument in effecting two cures after a lapse of eighteen months in the first, and of eight months in the second case; and did not even know whether the latter had been permanent.

DELEAU* distinguishes three kinds of stuttering: the first is produced by disordered motions of the tongue, which he calls *lingual*, the second includes

* Acad. des Sciences, 1828.

those stutterers who exhibit contortions in the muscles of the mouth and the face, which he terms *labial*; the third, comprising those stutterers who cannot properly produce any sound.*

As causes he assumes—1. A vicious enunciation contracted in infancy. 2. Produced by an organic lesion. 3. A weak will and an insufficient supply of nervous influence to direct the organs. In some respects his theory is just the reverse of that of Bullier.†

SERRES‡ considers stuttering a nervous affection, presenting two well marked aspects. The first resembles chorea of the muscles which modify the sounds; in the second there obtains a tetanic rigidity of the muscles of phonation and respiration. In the first, the will loses the power of influencing the rapid motions of the lips and tongue; in the second the respiration is obstructed. To cure a slight stutter, it is sufficient to pronounce briskly every syllable; for courage you must pronounce rapidly *cou-ra-ge*. When the stuttering is severe, this simple kind of gymnastics is insufficient; the arms must join in the movements. You must shake the stutterer by the arms at every syllable, or he may do it him-

* This is termed *douloureux* or *muet*.

† See sequel.

‡ *Memorial des Hôpitaux du Midi, année 1829.*

self, and he will be surprised at the facility which these motions will give him.

Remark.—Unfortunately, from the author's experience, the remedy proposed has frequently the opposite effect. It succeeds at first, but when the novelty is gone, the stuttering is generally worse.

DR. RULLIER* ranges himself among those authors who place the immediate cause of stuttering in the brain. He remarks that the cerebral irradiation which follows thought, and puts the vocal and articulating organs in action, gushes forth so impetuously and rapidly, that it outruns the degree of mobility possessed by the muscles concerned, which are thus, as it were, left behind. Hence the latter are thrown into that convulsive and spasmodic state which characterises stuttering.

To substantiate this defective relation between the exuberance of thought, the celerity of cerebral irradiation and the corresponding organic motions, he observes, that the great majority of stutterers are distinguished by the vivacity of their understanding and the petulance of their character; when advancing age clips the wings of the imagination, and ripens their judgment, stuttering diminishes as the

* *Dictionnaire des Sciences Médicales*. Brux., 1828.

action of their organs is now in equilibrium with cerebral irradiation.

As an auxiliary in curing stuttering, Rullier recommends the burning of moxa on the integuments covering the larynx and the hyoid bone.

Remarks.—Rullier's theory connecting stuttering with an exuberant imagination is certainly not new, having, as the reader may find, already been advanced by Aristotle. The connection between thought and speech is no doubt an interesting subject of inquiry. In plain, distinct speech, good speakers do not utter more than three syllables in a second, but in rapid delivery, as many as eight or nine syllables may be uttered within that time. Yet it seems certain that a long train of thought may run through the mind during the time it takes to articulate a single word. The anxious endeavours to express these thoughts may certainly interfere with articulation in two ways. If there be no command of words, it will produce hesitation, just as its opposite a want of matter; but I doubt much whether it can ever be the cause of stuttering, though it may produce stammering. The assigned reason that stuttering diminishes with advancing age, in consequence of the wings of the imagination being clipped, appears to me very imaginary.

Dr. H. M'CORMAC published in 1828 a treatise* on the cure of stammering, which he prefaces in these bombastic terms:—"That the following work will communicate, without the possibility of a failure, to the reader, whether medical or otherwise, the means of curing habitual stoppage of speech, may appear at first sight, a little paradoxical, when we consider that thousands of years have elapsed without any individual having ever been able to discover and communicate to the world any means by which the distressing affliction could be alleviated. But any scepticism that may exist on the subject will quickly vanish, when the stutterer, once in possession of the means, shall essay them on himself, and find that without trouble or difficulty, he may learn to speak with the same facility as other men. The peasant and the artisan will equally receive the benefit of this communication ; and that which for many centuries wealth could not purchase, will now be placed within the compass of even the most abject poverty." And again, "The means I have provided are so easy of execution, and so abundantly efficient, that were it not for the sake of saving trouble, it would be of little consequence whether the *children contracted it or not.*"

* *A Treatise on the Cause and Cure of Hesitation of Speech or Stammering.* By Henry M'Cormac, M.D. London, 1828.

It appears that, being in 1826 in the City of New York, Dr. M'Cormac was given to understand that a Mrs. Leigh of that city was very successful in the removal of impediments of speech. As he could obtain no information of the method employed, he considered that what another had done, he might possibly do likewise.

Dr. M'Cormac says, he now employed much of his time in pondering on this subject, until he arrived at the *acme* of his desires; for it suddenly occurred to him that the sole and proximate cause of stuttering was an attempt to speak when the lungs are in a state of collapse, or nearly so.

“In this,” says the doctor, “consists the discovery hitherto made by none. The patient endeavours to speak when the lungs are empty, and cannot. We can utter a voice without speech or words, but not the latter without the former.”

The cause from which all impediments of speech arise, being apparently so simple, the remedy proposed is equally easy, for he says: “The main thing to be attended to, and which, in fact, is the groundwork of the whole system of cure, is to expire the breath strongly each time, when attempting to speak, the lungs being previously filled to the utmost, or, in other words, to reverse the habit of stuttering, which

is that of trying to speak without expiring any air."

Remarks.—Dissenting from Dr. M'Cormac's assumption that stutterers try to speak with empty lungs, the remedy which he proposes, viz., to fill the lungs to the utmost extent, and to expel the words with force, is entirely inapplicable. In most instances, the practice recommended is more likely to aggravate the impediment than to remedy it. The regulation of the breath is no doubt of the utmost importance in all cases; but it certainly must *not* be effected in the way indicated by Dr. M'Cormac.

The error into which this author has fallen must be partly attributed to the false premise from which he started, namely, that the voice is indispensable to articulation. "We can," he observes, "utter a voice without words, but not the latter without the former." The stutterer should, therefore, cause his vocal cords to vibrate, and that he can only effect by forcible expiration. Now, it is well known that in whispering we articulate perfectly, without producing any voice. A person whose vocal cords are obliterated from disease may still be able to whisper out his thoughts; the voice is gone, but the articulation remains.* The vocal cords being unconcerned, the

* See *Philosophy of Voice and Speech*.

tone can, in whispering, be either raised or lowered, as in normal speech, when both the vocal and articulating organs are in action.

HERVEZ DE CHEGOUIN* says, "Stammerers have hitherto, convinced of their incurability, resigned themselves to their fate. Uncertain as to the cause, traditional remedies were resorted to. We were told of Demosthenes and his pebbles; but, by some fatality, pebbles don't cure stuttering now-a days. We were then recommended to articulate slowly; and in point of fact, stammering is then less sensible. But the reason why, was not known. In placing myself before a looking-glass and pronouncing each syllable separately, I did not stutter; but when I endeavoured to join several syllables, which required a change of form and position of the articulating organs, I had the same difficulty.

" The cause of stuttering consists either in the shortness of the tongue, or the vicious disposition of the frænum, which fixes it to the inferior part of the mouth, and thus restricts its motions. It is true that the frænum may be short or long in persons who articulate well, but in comparing the tongue of a stammerer with that of another individual, it will be found that the frænum of the former extends more to

* *Recherches sur les Causes du Bégaiement.* Paris, 1880.

the top of the tongue, or that it is harder and thicker, and also that the tongue is shorter, so that to raise it towards the pharynx, though not impossible, is yet very difficult. If I, then, find that the cause has its seat in the *frænum*, I divide it, and if the tongue be too short, I double the dental arches by inserting within a silver arch, by which they are brought nearer to the tongue."

Remarks.—The abnormal condition of the tongue may, indeed, produce defective articulation, but never actual stammering or stuttering. Mr. Hervez's *cintre* may be useful in cases when a portion of the tongue has been lost from disease. A congenital shortness of the tongue is not often met with, nor does it, when existing, cause stuttering. Neither will the division of the *frænum* cure either stammering or stuttering; and I have had under my care many pupils whose affection dates from an unskilful and unnecessary operation of that kind.

Dr. ARNOTT* says, "The most common cause of stuttering, however, is not, as has been universally believed, where the individual has a difficulty in respect to some particular letter or articulation, by the disobedience to the will or power of association of the parts of the mouth which should form it; but

* *Elements of Physics, etc.* G. Niel Arnott, M.D.

where the spasmodic interruption occurs altogether behind or beyond the mouth, viz., in the glottis, so as to affect all the articulations."

Starting from the principle that the closure of the glottis is the chief cause of stuttering, it follows that a stutterer is instantly cured, if, by having his attention directed to it, he can keep it open. In order to effect this, Dr. Arnott advises to begin pronouncing or droning any simple sound, as the *e* of the English word *berry*; whereby the glottis is opened, and the pronunciation of the following sounds is rendered easy. The words should be joined together, as if each phrase formed but one long word, nearly as they are joined in singing; if this be done, the voice never stops, the glottis never closes, and there is, of course, no stutter. With regard to the strangeness of such a mode of enunciation, Dr. Arnott observes: "There are many persons not accounted peculiar in their speech, who, in seeking words to express themselves, often rest long between them, on the simple sound of *e* mentioned above, saying, for instance, hesitatingly, 'e I e....think e....you may,'—the sound never ceasing until the end of the phrase, however long the person may require to pronounce it."

PROFESSOR MÜLLER* agrees with Dr. Arnott, in

* *Elements of Physiology.* Translated by W. Baly, M.D. 1857.

considering the immediate cause of stammering to be a spasmotic affection of the glottis, and that the cure must, therefore, be effected by conquering this morbid tendency to closure by voluntarily keeping it open. For this purpose, Dr. Arnott advises that the patient should connect all his words by an intonation of the voice, continued between the different words, as is done by persons who speak with hesitation. "This plan," observes Müller, "may afford some benefit, but cannot do everything, since the main impediment occurs in the middle of words." He, therefore, advises, in addition to Dr. Arnott's plan, the following procedure: "The patient should practise himself in reading sentences in which all letters, which cannot be pronounced with a vocal sound, namely, the explosives, should be omitted, and only those consonants included which are susceptible of an accompanying intonation, and that the sound should be much prolonged. By this method, a mode of enunciation would be attained, in which the glottis is never closed, owing to the articulation being combined with vocalization. When the stammerer has long practised himself in this manner, he may proceed to the explosive sounds. In such a plan of treatment, the patient himself would perceive the principle, while the ordinary method—that of Madame

Leigh—is mere groping in the dark, neither teacher nor pupil knowing the principles of the method pursued."

Remarks.—The so called spasmodic closure of the glottis, considered by Drs. Arnott and Müller, and their followers, as the chief cause of stuttering, is, I am convinced, not a cause, but *an effect*, produced by the misemployment of the respiratory and vocal organs—in short, by the application of inadequate means to surmount the difficulty. If the contraction of the glottis were *spasmodic*, in the proper sense of the term, the patient would scarcely have the power, which he undoubtedly possesses, even in the severest form, to arrest it instantly by silence.

Again stuttering does not, as frequently asserted, occur only at the explosive sounds, hence, the omission of these letters in the exercises, as recommended by Müller, will not always stop the paroxysm.

Those who make use of the trick of an intervening *e* sound for the purpose of keeping the glottis open, must be reminded that, in order to derive any benefit from the artifice, the next sound must closely follow, otherwise the glottis will again contract. That such a mode of drawing enunciation attracts, comparatively, little notice, is a proposition to which I cannot subscribe. In some cases, it is, perhaps, more dis-

agreeable to the listener than the original defect. In justice to Dr. Arnott, it may be observed, that he expressly states, that though the simple sound, the *e* of *berry*, is a means of keeping the glottis open, there are many cases in which other means are more suitable, as the intelligent preceptor soon discovers.

A medical writer* makes the following sensible observation on this method:—"My experience induces me to believe, that if it is looked upon as a panacea, and consequently insisted upon in all cases, and amongst them in many nervous cases, where success does not immediately result from the system, it may only cause the substitution of one sort of stammering for another, and that perhaps of a worse kind than the original stammer."

DR. SCHULTHESS† distinguishes idiopathic, symptomatic, and sympathetic stuttering. The first depends upon disharmony between innervation and the action of the vocal and articulating organs. Stuttering, the result of imitation, is idiopathic.

Stuttering is sympathetic, if the disorder of the larynx is consensual, owing to an affection of the brain, or the abdominal viscera.

Symptomatic stuttering generally disappears with the affection of which it is the symptom.

* *On Stammering.* By Bacc. Med. Oxon., 1850.

† *Das Stammeln und Stottern.* Zurich, 1830.

In *symptomatic* *stuttering* we must combat the affection of which it is a symptom. When *stuttering* is *sympathetic*, the treatment must be directed to the primary evil which produced it, and which has chiefly its seat in the abdomen and the brain. But though *stuttering* may originally be a secondary symptom, it may, by long continuance, become *idiopathic*; we must, then, after having removed the original cause, direct our attention to the *spasmodic* affection of the larynx, which may still remain. In *idiopathic* *stuttering*, we must internally and externally try such remedies which directly or indirectly act upon the *vascular*, *vegetative*, and *nervous* system generally; but especially upon the *vocal* and *sympathetic* nerves — remedies which have proved beneficial in other *convulsive* diseases, such as *epilepsy*, *chorea*, *hooping-cough*, etc.

Among external applications, *antispasmodics*, *resolvent* *embrocations* on the throat and the vicinity of the larynx, may be useful. *Derivatives*, *setons*, *blisters*, either on the throat, behind the ears, the neck, the chest, the pit of the stomach, or at distant regions, have, at times, produced good effects. "Thus," he says, "a *stutterer* was much relieved after applying to the chest the *antimonial ointment*."

Though agreeing with Dr. Arnott as to the spas-

modic state of the glottis, he doubts whether the enunciation of a simple vowel sound will much relieve the stutterer. Dr. Schulthess concludes his work by expressing a wish that some person would take the trouble of embodying, in a single volume, all the methods which have occasionally succeeded, so that the practitioner might have his choice of remedies in case of failure.

Remarks.—Dr. Schulthess's work is, in many respects, a very meritorious performance. He does not, however, appear to have enjoyed much opportunity for practice. Hence his views are theoretical, and his fault consists in having treated the subject chiefly from a medical point of view. Though fully admitting the paramount importance of a psychical treatment, which, as he observes, has been successfully employed when medical treatment only aggravated the disorder, he still considered stuttering, in most cases, a disease or symptomatic of a corporeal affection—an opinion which is daily losing ground, and which I cannot at all agree in.

SIR CHARLES BELL* attributes to the pharynx a much greater share in articulation than is generally allowed. He considers that this smaller cavity is substituted for the larger cavity of the chest, to the

* *Philosophical Transactions*, 1832.

great relief of the speaker, and the incalculable saving of muscular exertion.

Both the musical notes in singing and the vowels in speech are affected by the form and dimensions of the pharynx, and it is during the distension of the bag of the pharynx that the breath ascends and produces the sound which proceeds and gives the character to the explosive letters, and the pharynx, after being distended, contracts, and forces open the lips.

He further observes that, with each motion of the tongue or lips, there is a correspondence in the action of the velum and pharynx, so that the compression of the thorax, the adjustment of the larynx and glottis, the motions of the tongue and lips, and his actions of the pharynx and palate, must all consent before a word is uttered.

Applying this to impediments of speech, Sir Charles remarks that, "in a person who stutters, the imperfection is obviously in the power of intonation, and not in the defect of a single part. The stutterer can sing without hesitation or spasm, because in singing, the adjustment of the glottis and the propulsion of the breath by the elevated chest, are accomplished and continue uninterruptedly, neither does he experience any distress in pronouncing the vowels and liquid consonants. For the same reason, and if he

study to commence his speech with a vowel sound, he can generally add to the vibration already begun, the proper action of the pharynx. Another necessary combination distresses the stammerer, namely, the action of the expiratory muscles, and those of the throat. He expels the breath so much in his attempts at utterance, that, to produce a sound at all, the ribs must be forcibly compressed. To remove this necessity, if he be made to fill his lungs and elevate his shoulders, the elasticity of the compages will come into play, so as to expel the breath without effort, and he will speak with comparative facility and comfort. Accordingly, to commence speaking with the chest fully inflated, to pitch the voice properly, to keep measured time in speaking, and to raise the voice on a liquid letter or vowel, are some of the common means recommended for the cure of it; and they are certainly those which tend to overcome the difficulty in combining the organs of speech when the defect arises from no disorder or malformation of the organs of speaking."

Remarks.—It will be perceived that our distinguished physiologist considers stammering not as a disease, but chiefly as the result of disordered respiration. He, therefore, lays down no specific plan, but recommends the common means which, by regu-

lating the respiratory acts, may tend to overcome the difficulty of the stammerer in combining the action of the organs of speech.

DR. VOISIN* being afflicted with an impediment in his speech, left no method untried, from the pebbles of Demosthenes to the method of Mrs. Leigh and Malbouche, for the purpose of removing it. Chance first led him to the discovery of the method he recommends. He was reading a paper before a society, and wishing to do so with energy, he happened to look in a mirror which was opposite him, and perceived that he rested the border of his right hand upon his chin, in a manner so as to depress the inferior maxilla and hold the mouth half open. The idea immediately suggested itself that this instinctive and mechanical movement might contribute to his reading more promptly and easily. In fact, upon ceasing the pressure the difficulty of expression was quickly reproduced; but upon replacing his hand the freeness of the articulation immediately returned. Endeavouring to give an account of this, he observes: first, that the mouth was kept half open, the distance between the teeth being a line and a half. Second, that the tongue, abandoned to itself, in the state of repose, placed itself against the in-

* *Bulletin de l'Acad. Roy. de Med.*, 1837.

ferior dental border, whilst during pronunciation it is projected forwards and upwards, but is withdrawn almost immediately behind the alveolar arch. Third, that a medium pressure is necessary upon the chin ; this should be sufficiently strong to resist the muscles which move the inferior maxilla, without impeding its movement of elevation, so strong as to prevent perfect approximation. To produce this pressure, and at the same time make it excusable, it is necessary to use a certain delicate art, so that the manœuvre may not appear forced, but on the contrary, almost natural. This pressure should be made with the external border of the right or left hand indiscriminately, the thumb applied to the chin, and the fingers free. He has observed the same in other individuals afflicted with impediment.

Remarks.—There are few cases in which any benefit will be derived from the artifice recommended. It is at best but a palliative, not reaching the cause of the evil ; nor was Dr. Voisin cured by it. The pressure upon the chin during enunciation may, in some instances, give temporary relief, like many other tricks, but it can do no real good to any stammerer, much less cure him.

Dr. MARSHALL HALL* says, “In stammering the

* *Diseases of the Nervous System.* 1841.

act of volition is rendered imperfect by an action independent and subversive of the will and of true spinal origin. In some instances, an act of inspiration is excited at the same time, which is equally involuntary ; but in general, there is a violent effort of expiration, and, in the worst cases, the disease is of an almost convulsive character. Stammering, as a disease, is sometimes induced by a morbid condition of the intestines, acting through the incident nerves.* Dr. Bostock has recorded such a case ; it was cured by purgative medicines.”

“ Stammering is very like a partial chorea ; it is not, I think, as Dr. Arnott supposes, an affection of the glottis or larynx, that is, of the organ of the voice, but of some of the different parts which constitute the machinery of articulation.”

Dr. M. Hall, further, very justly observes :† “ All results prove that the larynx is not closed in stammering, and, indeed, that its closure and stammering are totally incompatible with each other. Where articulation is interrupted, it is by the co-operation of a part anterior to the larynx ; it is, in a word, *not* an interruption of the organ of voice, but of speech.”

* *Medico-Chirurgical Transactions*, vol. xvi, p. 72.

† *Journal of the Royal Institution* for 1841.

Dr. LICHTINGER,* in a series of papers on stuttering, distinguishes those cases which depend on an affection of the nervous system from such which result from malformation of the organs of speech. Following Dr. Marshall Hall, he further distinguishes cerebral and spinal stuttering. In the former, affections of the brain interfere with the efforts of the will, so that spinal activity preponderates unregulated. On the other hand, spinal stuttering must be referred to that portion of the cord which is situate between the origin of the fifth and seventh and those respiratory nerves that supply the chest and belly. This may be either central, when the cause exists in the tract mentioned; or eccentric, when the cause is seated in some of the reflex nerves.

Mrs. LEIGH, Mr. MALEBOUCHE, Mr. BROSTER, Dr. YATES, Mrs. HAGEMANN, Prof. BERTRAND. The American Theory and Method.† This method, said to have been invented in 1825, by Mrs. Leigh, an English-woman residing at New York, created great sensation both in America and Europe. Magendie, in his report to the French Academy (March 11, 1828), gives the following account of this lady:—Mrs. Leigh,

* *Med. Zeitung.* Berlin, 1844. No. 34.

† Although, in chronological order, this theory ought to have been inserted before, it was deemed advisable to produce it here in connection with its chief propagator in Europe, Mr. Malebouche.

residing at New York, having become a widow when about thirty-six years old, was received in the house of Dr. Yates, one of whose daughters, about eighteen years of age, laboured under a severe impediment of speech. In return for the great kindness with which she was treated, Mrs. Leigh determined to free the young lady from her impediment.

Deriving no information from any English work treating of the subject, she tried a number of remedies, until she arrived at her "infallible" method. Considering that the pressure of the tongue against the inferior incisors was the sole cause of stuttering, the great point of her system consisted in inducing the patient, during enunciation, to alter the position of that organ by placing it to the top of the palate, by which means, it is said, she succeeded in curing Miss Yates of her infirmity.

Dr. Warren of Boston, however, insists that the above "great discovery" was not made by Mrs. Leigh at all, but by Dr. Yates, the father of the young lady; and that he merely consented that the system should pass under her name, from fear of being considered an empiric.

Dr. Zitterland, on the other hand, in a pamphlet published in 1828, at Aix la Chapelle, says, that Mrs. Leigh's husband had been a stutterer, and that the

discovery was the result of nine years constant observation. Others assert that Mr. Broster had practised the same method before Mr. Leigh, and that it was from England that the system was transplanted to America. Be this as it may, certain it is that Mr. Malebouche, a Frenchman, bought the secret for a round sum of Mrs. Leigh, and introduced it, in 1827, into the Netherlands and Germany. Both the Netherland and Prussian Governments considered the subject of sufficient importance, to grant to those who were in possession of the secret considerable privileges, and to appoint them professors at public establishments.

Mrs. Leigh's system was shortly afterwards introduced into France by Mr. F. Malebouche, a brother of the gentleman who purchased the secret from Mrs. Leigh. As Mr. F. Malebouche, in the course of his practice, found the method, in many cases, inefficient, he set about perfecting it, and presented to the French Academy of Science, in 1841, a memoir containing his improved system of treating defective utterance.

In this memoir, Mr. Malebouche asserts of the American method that it is not applicable to all species of stuttering, and that the cures effected by it were not lasting. He had, therefore, remedied its short-comings, and discovered a more perfect method

of cure. His starting point is directly to oppose the curative remedies to the vicious action of the organs of speech: as he does not think that respiration has much to do with the production of stuttering, he deems it unnecessary to occupy himself with this fundamental element of speech, which, he assumes, becomes regularised in its actions in proportion as stuttering diminishes. The lips form a special object of Mr. Malebouche's treatment. With regard to the tongue, Mr. Malebouche recommends that not merely the tip, but the whole organ should be raised and applied to the palate, retracting it as much as possible. In this manner, the stutterer begins to perceive the motions necessary for pronunciation; he must be made, while the tongue is thus glued to the palate, to pronounce all kinds of syllables and words, which he succeeds in effecting after a longer or a shorter time, according to the intelligence of the pupil, or the degree of flexibility of his organs. The pronunciation, no doubt, is much altered—it is thick, clammy; but experience has proved that this defect disappears in proportion as the pupil becomes master of his movements. The teacher should not yield to the desire of the stutterer to be soon relieved from this mode of enunciation; it must be continued for a considerable time, until the pupil can, with the

tongue placed in the indicated position, enunciate distinctly. It is important, nay indispensable, that during the time of the treatment, the subject should, excepting during the hours devoted to the exercises, keep perfect silence. The invariable, infallible rule is this—to articulate as distinctly as possible, with the least possible detachment of the tongue from the palate. The more the pupil succeeds in articulating clearly, while the tongue is retracted, the more perfect is the cure.

Mrs. Henriette Hagemann, also practised this system and wrote on it in 1845. She advises, in addition to Mrs. Leigh's trick, that extra vowels should be inserted in the difficult words, and that the consonant *n* should be pronounced before every difficult word.

Mrs. Hagemann, like all others who followed this system, became perplexed with the subject of stammering, because her plan was not in accordance with nature's laws ; and although it appeared to answer for a time, was, perhaps, never really successful in effecting a cure. Indeed, the benefit was generally more the result of accident, such as influence on the imagination than from any physiological law. Mrs. Hagemann well observes, however, "that the cause of stammering lies in the defective employment of

the organs of speech, the tongue and the lungs." She further observes: "The fixed ideas which many stammerers have, arise from the mysteriousness of the affliction. One believes that he only stutters at the new moon, another at the full moon; a third believes that his affliction is greater after certain aliments. One stammers when he speaks to his superiors, another when talking to his inferiors. One of my pupils insisted that he could not pronounce *h* at the beginning of a word, so that for *heilig* he pronounced *eilig*, and yet in the next moment he always pronounced the *h* in words which commenced a vowel, thus for *elf* he pronounced *helf*."

Mr. Bansmann bought Mrs. Leigh's system of Malebouche, and was appointed by the Prussian government in 1829, to teach the system in the training colleges. He published* a short article on the subject, but his observations are worthless, as he did not appear to understand the subject, having apparently obtained all his ideas second-hand, and, like many others who trade in these things, it would have been much better had he remained silent and not exposed his ignorance.

* A short paper on the cure of stammering, as communicated to Dr. Harnisch, Director of the Royal Seminaries for Teachers, by Bansmann, and published as an introduction to the work entitled, *Das Geheimniss Stotternde und Stammelnde zu heilen*. By F. Otto. Halle, 1832.

When, in the year 1828, Magendie read to the academy the report on Mrs. Leigh's method, as introduced by Malebouche, Professor Bertrand* made the following observations :—“ Our investigations as regards the treatment of nervous affections have long since convinced me of the possibility of curing stuttering. Stuttering is a spasmodic nervous affection, which, like all diseases of the same kind, is eminently susceptible of being advantageously combated by a suitable moral treatment. We are not acquainted with the kind of vocal gymnastics which Mrs. Leigh employs ; but we are convinced, that this gymnastic by itself has no specific efficacy, and that any method which has for its result to impress the stutterer in occupying his attention whilst he speaks, may for the time cure him of his infirmity. It is well known, that those whose pronunciation is most defective can sing without any difficulty. Why ? because the attention required to follow the measure, and the emotion which attends singing, produce the distraction which we have mentioned. We thus have a choice of a number of processes more or less ingenious. Oblige the stutterer to modify, whilst speaking, his respiration in such or such a manner ; to confine himself exclusively to this or that peculiarity of

* *Archiv. Gén. de Méd.*, 1828.

enunciation ; to precede each phrase with this or that syllable ; force him, if you like, to speak with pebbles in his mouth, as Demosthenes did, or confine him to certain regular motions of the fingers or nails, and you will cure all gifted with sufficient force of will to execute their motions in speaking. These ideas are probably very different from those which enter into the method of Mrs. Leigh, and those who sell her secret. With regard to the latter, it must be admitted, that it is even good that they spread the idea of possessing a special efficacious method. We are too much convinced of this truth, which we do not hesitate to express, that from the moment the method shall cease to be a secret, the number of cases will gradually diminish ; and we shall, as regards stuttering, have again to observe that, like all other secret remedies the success of which has been proclaimed by so many skilful observers, it will cease to be efficacious after having been made public, simply because it has lost the prestige of mystery, which at first surrounded it, and which made its due impression on the patients."

The observations of Prof. Bertrand are a somewhat *ex parte* statement respecting the great influence which is exerted on stuttering by a withdrawal of the attention. No doubt, most stutterers can sing

and can also act any other character, and imitate the voice of any other person. For a time, at least, they can nearly all do this: but this voluntary imitation of some one else cannot go on for long together, and even if it could, experience has shown that after a little time persons begin to have their defect even in the assumed tone. As to the tricks of motions of the fingers, this is well known to afford only very temporary relief, and generally tends eventually more to aggravate than remove any nervous defect. Prof. Bertrand's observations respecting the advantages of secrecy would be most sound, if we only had to act on the imagination. But stuttering is more or less a functional disorder. It is true that it is often excited in the mind: but after a time it simply becomes a habit. We must bear in mind also that Prof. Bertrand's observations were made nearly forty years ago, and we will hope that the day for giving credence to these exploded nostrums is gone for ever. Physiology is now a popular study, and it is alone by disseminating the truths we are taught by it, that we can successfully eradicate any misuse of the organs of speech. No cure, indeed, can be permanent or satisfactory which has not been effected by sober reason: all influence on the imagination is temporary.

The chief point insisted on by Mrs. Leigh, and

most others who followed her method, that in stuttering the tongue is fixed to the inferior incisors, is not true. It is also evident that as neither Mrs. Leigh nor Malebouche attach any importance to defective vocalization and the respiratory functions, some of the most essential elements in the causation of stuttering remain unnoticed, and the method is, consequently, one-sided, ineffective, and unnatural.

COLOMBAT* assumes two species of stuttering, each having several subdivisions.

The first, consists of spasmotic motions of the lips and tongue, and other moveable organs, and conduces to the frequent repetitions of the labial sounds.†

The second, consisting mainly in a rigidity of the respiratory muscles, and those of the larynx and pharynx, and manifesting itself by a sudden stoppage of the breath, owing to the contraction of the glottis, and consequently, affecting the emission of sound. The guttural sounds *g*, *k*, *q*, are chiefly influenced in this species.‡

Those labouring under the first named defect, are usually persons of a lively disposition, whilst those

* *Traité de tous les vices de la parole et en particulier du Bégaiement, etc.* Paris, 1840.

† *Bégaiement labio-choréique*, so termed on account of its analogy with chorea, or St. Vitus's dance.

‡ This he calls *Bégaiement gutturo-tetanic*.

subject to the second species, articulate slowly, and make considerable efforts to produce the disobedient sounds. Colombat followed the opinion of his predecessors, in assuming as the proximate cause of stuttering, the want of harmony between the nervous influence and the muscles distributed to the organs of speech. He, therefore, devised a series of orthophonic exercises, in order to restore the harmony between nervous action and the organs of articulation ; the most effective agent in these exercises being the application of rhythm in speaking.

The orthophonic gymnastics have the advantage of acting physically and morally ; they act physically upon all the respiratory muscles ; upon the lungs, the larynx, and specially upon the glottis, the tongue, and the lips. The respiration effected in the mode indicated has for its object, to relieve the spasmodic constriction of the vocal cords by opening the glottis, while, at the same time, the chest is expanded by a large quantity of air which escapes slowly by an expiration which should be gradual, and only sufficient to produce the sound.

By placing the finger upon the *pomum Adami* every one can convince himself, that on raising the tongue and turning the tip towards the pharynx, the larynx descends, and the glottis enlarges, whilst in stutter-

ing the larynx is usually raised, by which the glottis is constricted. The position of the tongue, as above, renders it almost impossible to stutter upon the guttural, dental and palatal letters, whilst the infirmity is soon exhibited when it is depressed. The transversal tension of the lips, as indicated, tends to relieve that species of convulsive tremor which obtains in articulating the labials when the lips form a sort of curvilinear sphincter. As different causes never produce the same effects, it is easy to conceive that the disagreeable repetitions cannot take place if the mechanism which produces them is altered in an opposite direction. There is also a condition upon which he insists that the patient should, for at least a fortnight, not speak with any body else, or only with such individuals as are under treatment for the same infirmity, otherwise the precepts are soon forgotten, and the influence of the method is only ephemeral.

“After what has been stated,” says Colombat, “it is evident that rhythm is one of the chief phases of my method.”

Remarks.—Although Mr. Colombat obtained the Monthyon prize from the French Academy, it is difficult to discover that he has thrown any new light on the infirmity. Colombat’s great merit consists in

having systematised the subject ; although his many sub-divisions are useless, and some of his principles erroneous.

Nor is there anything original in M. Colombat's classification, which seems to have been adopted from that of Serres d'Alais,* who says stuttering presents two well marked species ; the first consists in a chorea of the muscles of articulation : the second is a tetanic rigidity of the vocal and respiratory organs with stuttering, that is, an articulative fault with a vocal fault. Consequently a number of heterogeneous conditions of abnormal speech were collected under the name of stuttering, and one treatment applied to all, which naturally could only succeed in individual cases. Of Colombat's definition that "stuttering is that fault in speech which consists in convulsive efforts, and frequent repetitions of certain syllables and letters," Dr. Klencke has remarked, "whoever has seen stutterers will soon perceive the insufficiency of this definition, as what is here considered as an essential feature is frequently absent. Colombat's explanation of the causes, 'disharmony between the will and the organs of motion, between innervation and muscular irritability,' are also mere high-sounding phrases. Hence it came that Colombat directed

* *Mém. sur le Beg., Journal des Difform.,* 1829, No. 11.

his attention to cure 'the spasms of the articulating organs.' The confusion became greater since Colom-
bat's division of stuttering into many species—a speci-
fication of an unknown subject. Stammering and
stuttering, primary and secondary phenomena, causes
and symptoms, were all confounded, and if Colom-
bat has really succeeded in curing a stammerer, it was blind
chance, and he attained his object by making, in a
round-about way of twenty miles, what he might
rationally have attained in one straight mile."

There can be no doubt that a slow and measured
delivery sometimes tends to diminish stuttering, and
may prove beneficial in some cases of defective utter-
ance; but nothing can be more erroneous than to
assume that rhythm, however skilfully employed, is
by itself sufficiently potent permanently to remove
a severe impediment. From the circumstance that
rhythm is in some uncomplicated cases a very useful
adjunct, it has been by many writers cried up as a
panacea for stuttering. The real fact is, that it is not
the rhythm which produces a beneficial effect, but its
influence in altering, for the time being, the manage-
ment of the breath; for the moment the patient
begins his ordinary discourse the defect immediately
reappears. Unless, therefore, the vicious respiration be
first attended to, so as to establish a synchronous

action between the respiratory, vocal, and enunciating organs under *all circumstances*, rhythm alone will produce little or no effect.

HOFMANN* considered a spasmodic affection of the glottis as the chief cause of stuttering. This affection, he however considers, is produced by the wrong use of the vocal organs. The vocal ligaments are the seat of the evil. Whilst the buccal organs endeavoured to articulate a sound, the muscles of the vocal cords suddenly refuse to act, the ligaments can produce no sound, and though the whole mechanism of the organs of articulation are put in motion, the air which is to be articulated is not supplied.

Remarks.—It is unnecessary to offer many remarks on Hofmann's theory, which holds true in some cases. His advice is to prevent the closure of the glottis, by paying attention to the tone. He further says, “the patient must acquire the necessary calmness of mind.” No doubt, very excellent advice, but I fancy that Hofmann, if he were a nervous stammerer, would find that he would be obliged to say with the poet, “I could easier teach twenty what were right to be done, than be one of the twenty to follow my own teaching.” Hofmann, however, only wrote on

* *Theoretisch Practische Anweisung*, etc. Theoretical and Practical Instruction for the Cure of Stuttering. Berlin, 1810.

the subject when it was causing some controversy, without having anything new to communicate.

BLUME* says, "The causes are proximate and remote, or rather primary and secondary. The primary physical causes are either in defective organization or defective employment of the organs of speech. The secondary or direct causes are second dentition, a retarded development of the body up to puberty, bad education and imitation, injuries to the nervous system.

" In point of fact, all causes leading to stuttering may be comprehended within the two categories: Causes within the vocal and articulating organism. Causes without the vocal and articulating organism."

Remarks.—Blume seems to have studied this subject very deeply; and the advice he gives, and the remarks he makes in the two volumes of his work, show that he was not entirely a theorist. But although not wholly a theorist, he evidently was confused with the variety of forms which stuttering assumes. He could have had little real knowledge of the physiology of the defect, when he advised his patients to put bits of stick or pipe in the mouth. All mechanical aids—be they what they may—are bad. For a

* *Neueste Heilmethode des Stottern.* New Cure of Stuttering. Leipzig, 1841-44.

time, it is true, they may benefit, but they only delude. A mechanical dodge may alter the form of a stammering, but right use can alone remove misuse.

BEESEL* assumes four kinds of stuttering,—1. With the larynx too much raised, and closed glottis. 2. With depressed larynx and open glottis. 3. Stuttering with tongue and lips; and 4. A mixed stuttering.

Beesel gives the following instructions: the teacher must first make the patient pronounce all individual sounds of the language, so as to convince the pupil of his ability to do so. If in the enunciation of some of them, the teacher observes too much pressure of the lips or tongue, it must be remedied, and the pupil must be made to pronounce them with the least pressure and effort. The pupil must be particularly exercised in the sounds difficult to him. We must, however, be cautious not to reprimand him too much. The teacher proceeds then to syllables and words, then to sentences, especially such as are difficult.

Remarks.—It is useless to enter into the value of

* *Belehrung über die Entstehung, Verhütung und Heilung des Stotterns.* Instruction on the Origin, Prevention, and Cure of Stuttering. Danzig, 1843.

Beesel's classification, because it is utterly valueless, and is only useful to show how absurd all classifications of defective speech are. Dr. Harnisch* well says, that the disputes as to the number of forms of stuttering and their classification, about which so much is written, are useless, and only lead into error. The advice Beesel gives is only inserted that I may be enabled to caution persons against following it, especially that part in which he recommends practising difficult words and sentences. If this is done without any system, it will be nearly sure to increase the impediment, and what are, perhaps, only temporary difficulties, will become permanent ones.

KLENCKE says,† “in stuttering it is the expiratory current which is obstructed ; for moments it is not developed at all, so that the will is not the master of the organs. The harmony between the volition and the respiratory system is wanting, and as the articulating organs are in action, but the vocal organs impeded, the harmony between the organs of vocalization and articulation, so requisite for speech, is absent.

* In preface to Otto, *Das Geheimniß, etc. The Secret to Cure Stuttering.* Halle, 1832.

† *Die Störungen des Menschlichen Stimm und Sprachorgans. The Disorders of the Human Voice and Articulating Organs.* Cassel, 1844.

1. "The object of the teacher should, therefore, be directed to the following points: the teacher must not lose sight of his pupil, but must as frequently as possible be with him, to serve as a mental and moral lever. Stutterers are either of a sanguine temperament, and in early youth careless about their infirmity, nor have they the firmness to direct their attention to the faults they commit; or, especially when they have stuttered for a long time, they are of a retiring contemplative mood. The mind has then acquired a relaxed type without any elasticity. I have, therefore, never seen a patient cured where there has not been some psychical preparation. We must acquire the confidence of the pupil, draw his attention to his faults, but we need not present to him the cure as very difficult, otherwise we should discourage him. His mind must be roused. But as the mind is intimately connected with the physical organism, it must be our endeavour to act on the mind by the organism.

2. "The respiratory organs must be systematically developed."

Thus wrote this author eighteen years ago. Recently he has published* his experience since that

* *Die Heilung des Stotterns.* The Cure of Stuttering. Leipzig, 1862.

time, and it will be seen from other parts of the work that I have frequently quoted his opinions in support of my own views. A few detached extracts from this author's work, will show his present opinions, and as they are on the whole so sensible, I make no apology for their length.

“ In medical subjects every theory is usually more or less artificial and complicated, it establishes much more than may be useful in practice. How complicated and circumstantial was not the formerly recommended treatment of stuttering, founded upon imperfect experience, and how have I not bothered myself with *apparently important*, but in reality *trifling*, phenomena. My experience during the last fifteen years has proved to me that we effect nothing with theories in stuttering ; that we must observe *many* stutter cases, must compare the natural phenomena, and must treat defects of speech as *undeveloped capacity*, in which we have to remove the cause and to regulate the nervous system by psychical power. My simple treatment is rational throughout, and if according to the old adage,—‘ *simplex veri sigillum*,’ —that what is true is always characterized by simplicity, then I believe to have approached the truth by this empirical simplicity to which I have been led by long practice. But as every practitioner finds out

that he frequently is quite helpless at the bed of the patient, with all his theory, and gradually perceives that he must adopt some empirical method, so it is with the physician who is about treating stuttering according to his scientific theory. I have as yet seen no stutterer who has been cured by a scientific treatment according to causal indications. An individual, for instance, is treated for spinal irritation, or some other central or peripheral disorder: he stutters still as before, what have all medicaments and operations effected? *Nothing* as far as I know. And of what use to the stutterer is the improvement in his nervous system, so long as he has not learned the *technics of speaking?* Would it ever occur to a physician to make a man a singer by drugs, without any instruction in singing? I also doubt whether a physician can immediately form a correct estimate of the causes of stuttering, and treat it therapeutically, by treating the subject merely as a *patient*, that is, by seeing him once a-day, and prescribing for him. . . The relief we have a right to expect is, *not* the cure of stuttering, but merely the removal of the predisposing causes, which conditioned stuttering either directly or indirectly. The stuttering itself will always require a *special* didactic treatment, in order to alter the condition of the respective organs, and

to develop their acquired freedom by practical activity. Whenever a decided medical treatment of the general system was requisite, I always acted in concert with such physicians as previously knew the patient or such as attended at my institution... We must not imagine that we can treat nervous stuttering, whether it be erethic or paralytic, by drugs, which, like nitrate of silver, strychnine, &c., produce a known effect upon the nervous system. I am not aware that they have been of any use in such cases. They may in particular indications serve to alter abnormal functions, but can only in some few favourable cases be useful as a preparatory cure for the treatment of stuttering. I have noticed that nervous irritation which favours stuttering can only be conquered by attention to diet, and by the restoration of the normal function of the irritable organs... I have, averse as I am to the employment of drugs, especially with scrofulous, debilitated individuals, arrived at the conviction that a proper diet mostly suffices to improve the muscular and nervous system. Where nutritive life was oppressed by the predominance of an irritable nervous system, a corresponding alimentation was effective; where great sensibility disturbed the normal harmony of the functions, a regular regimen, combined with muscular activity,

proved very advantageous. When a weakly organic life manifested itself by a particular indolence and mental weakness, approaching sometimes the character of cretinism, a methodical arousing of mental activity proved an adjvant in the cure of stuttering. The mental condition plays especially in adults an important part in the treatment for stuttering. The endeavour, the ambition to be rid of an evil which leads to ridicule, exercises a beneficial influence upon adult stammerers, provided we know how to make use of the feeling. In such cases I always present to the stutterer his evil as specially a mental one, which may be conquered by his *firm will*. He now directs his attention upon himself, he is vexed at his stuttering, looking at it as a weakness of the will, by doing so he supports me much in his treatment. This firmness of the will is a powerful regulator of the nervous system, it forces irregular innervation into the normal channels. I, therefore, endeavour in *all* stutterers to rouse this firmness of the will and to keep it in constant action...

“The physical exercise is to become a mental act. In the same way as the child learns to speak, so shall the stutterer, in many respects comparable to a deaf-mute, learn to place his language under the judgment and dominion of the ear...

"I have myself, many years ago, thought that a physical speech-practice was sufficient to cure stuttering; experience has taught me better...

"I then learned that this method was not a *natural* method; that a child does not learn to speak by being exercised in individual consonants, but that from the very *beginning* learns by the *ear* and the *mind* to imitate and to develop speech as an expression of thought and feeling...

"How the brain or the spinal cord is primarily or secondarily concerned, I cannot clearly say, and it is, therefore, better that I pass it over than to increase the number of supposititious theories. As regards the practical treatment of stuttering, it is enough for us to know that some general disorder has altered the nervous and muscular life."

Remarks.—It cannot be but gratifying to myself to find that the results arrived at by Dr. Klencke, after fifteen years practice, are nearly identical with the leading views promulgated by my late father and myself for many years past. Dr. Klencke, being a medical man, at the beginning of his practice as a stutter-doctor, vigorously attacked the *pretended disease* with drugs, until he found that drugs do not cure stuttering. "*That the stutterer must not be treated merely as a patient, but that stuttering requires a special*

didactic treatment." At the beginning of his practice, Dr. Klencke made use of a variety of instruments then in vogue, so repeatedly denounced by me in former treatises. At present Dr. Klencke has relinquished them altogether, and adopted that *natural* method long since insisted upon and practised by my late father and myself. But whilst agreeing with this author's general opinions respecting the nature and treatment of stuttering, I differ with him both as regards his classification and specific treatment of the various kinds of 'stuttering. There are some inconsistencies in Dr. Klencke's work, which, even if space permitted, it would be ungracious to dwell upon, cordially agreeing, as I do, in most of that able author's conclusions.

DR. BECQUEREL* believes that the cause of stuttering is a dynamic affection of the respiratory muscles, having probably its primary seat in the nervous system. The convulsive movements of the vocal and articulating organs; the difficulty of pronouncing certain syllables and their frequent repetition, are merely the consequences of the premature escape of the air which is not employed in the formation of sound. It is, therefore, necessary to prevent this

* *Traité du Bégaiement.* Paris, 1847.

escape of air, by retaining it as much as possible during speech. In stuttering it will be seen that the walls of the thorax sink too often, to expel the excess of air introduced. The result of it is that a larger quantity of air escapes than is necessary for articulation, and a sensible current of air arriving in the buccal cavity at the moment when the tongue, the lips, and the buccal parietes contract for articulation, impedes their free action, and produces stuttering. Such being the case, the loss of air must be prevented by retaining it as much as possible, and employing it in the formation of articulate sound. He says, "the primary cause of stuttering lies in the defective action of the thoracic muscles; the secondary, in the articulating muscles, which are consecutively affected."

Remarks.—Dr. Becquerel's theory, though defective, contains much that is true, which, in some cases may, under careful guidance, be carried out in practice. It appears that Dr. Becquerel himself—one of the most eminent living French physicians—laboured under an impediment of speech, and as none of his colleagues were able to afford him any help, he applied to a Mr. Jourdant, (not a medical practitioner) by whom he was much relieved, if not altogether cured. And it is the theory of Jourdant

which our author has amplified and developed in his work.

Dr. GRAVES* says, “Stammering has been explained, as depending on spasms of the muscles, which are employed in modifying the column of air as it rushes through the narrow aperture of the glottis. At certain times, and under a variety of circumstances, those fine muscular organs become spasmodically affected, the vocal chords no longer undergo the same steady and exact tension and relaxation, and speech becomes interrupted in consequence of frequently recurring closure of the glottis. . . . There is one curious fact with reference to stammering, which I do not think has been before noticed, namely, that women very rarely stammer. In a family of my acquaintance the defect of the speech has been hereditary among the males for three generations, but the females have in no single instance been so affected.

“With respect to the cause of stammering, I have recently discovered a method by which the most inveterate stutterer may be enabled to obtain utterance for his words with tolerable fluency. It is simply by compelling him to direct his attention to

* Extract from *Clinical Lectures of Dr. Graves*. Edited by Dr. Neligan. London, 1848.

some object, so as to remove it from the effort he makes to speak. Thus, I direct him to hold a rule or a bit of stick in his right hand, and with it to strike the forefinger of the left, in *regular time* with the words he is uttering ; the eye must be fixed, and all the attention directed to the finger he is striking, and the time must be strictly kept. This method I have tried in several instances with complete success, and Dr. Neligan informs me that, since I first mentioned it to him, he has found it completely effectual in numerous cases. Although, of course, when thus employed, this plan can only be regarded as a means of affording temporary relief, I have no doubt, that if it were perseveringly followed out with young persons who stammer, both in reading and speaking, it would cure them permanently of the unpleasant affection. Its efficacy would seem to prove that stammering is altogether a nervous affection."

Remarks.—It will be seen that there is nothing original in the observation that stammering is comparatively rare in females. With regard to the discovery of "a method," it is simply the old story of the substitution of one trick for another. Dr. Graves, however, fairly admits, that it is only to be considered as affording temporary relief. If it

produced temporary relief, without seeming to more firmly engraft the stammering into the system, there would be no harm in this plan; but all these tricks tend to complicate what is often a very simple misuse of one of the organs of articulation; and no "method" can be of any real benefit that does not remove this wrong action.

DR. CARPENTER* concurs in the opinion of most authors that the defect called stammering essentially consists in the want of power to *combine* the different actions concerned in vocalization. He also considers a disordered action of the nervous centres as the proximate cause; though this may be (to use the language of Dr. M. Hall) either of centric or excentric origin. And whereas the stammerer experiences his greatest difficulties in the pronunciation of the consonants of the explosive class, he approves of Müller's suggestion, that the patient would do well to practise sentences from which such consonants are omitted.

With regard to the cure of stammering, Dr. Carpenter makes the following suggestions:—

"One of the most important objects to be aimed at in the treatment of stammering consists in the prevention of all emotional disturbances in connection with the art of speech; and thus requires the exer-

* *Principles of Human Physiology.* Fifth Edition.

cise and the direction of thought in the following modes :

“ To *reduce* mental emotion by a daily, hourly habit of abstracting the mind from the subject of stammering both while speaking and at other times.

“ To *avoid* exciting mental emotion by (not?) attempting unnecessarily to read or speak when the individual is conscious that he shall not be able to perform these actions without great distress.

“ 3. To *elude* mental emotion by taking advantage of any little artifice to escape from stammering, so long as the artifice continues to be a successful one.”

Remarks.—It would thus appear that Dr. Carpenter looks upon stammering (which word he uses synonymously with stuttering), rather as a psychical affection, which must be combated by psychical means. That there are some stutterers who are more free in their utterance when not thinking of their difficulty, or when their attention is, during speech, directed to another object, is very true, and in such cases the act of abstracting the mind from the subject of stammering may prove beneficial if the pupil had the power to do so; but the difficulty consists in reducing such a theory to practice. Nothing is easier than to advise the patient to withdraw his attention

from his affliction—nothing more difficult to the stutterer than to effect it.

To exercise a voluntary power over the direction of our thoughts when we are, by actual sensation, constantly reminded of our affliction, requires a mental effort which but few are capable of. And if the case be really merely psychical, and the patient have sufficient mastery over his mind, would it not be more rational to advise the patient to do just the reverse ; that is to say, to direct his attention to his affliction, and to overcome it by concentrated firmness of purpose ? We shall have to recur to this subject.

In extreme cases of mental abstraction and excitement, we find occasionally that fluent speech is given for the time ; but in the majority of cases it is quite the reverse, especially if the person is labouring under *fear*, which is known to stop the secretions, especially of the salivary glands, causing a dryness in the mouth. Nor is it only the stutterer who is often rendered unable to speak under its influence. The most trivial thing will often obstruct an elegant flow of language, and overthrow an entire chain of thought, causing an utter incapability of pronouncing a word at will ; as instance, Macbeth :

“But wherefore could I not pronounce
Amen ? I had most need of blessing ; and Amen
Stuck in my throat !”

It is a circumstance very little known, that some subjects stutter only in the presence of certain persons, while their articulation is quite free in the presence of others. When a patient has once stuttered in conversing with a certain individual, the chances are that he will do so again on a similar occasion. Be it from association or other causes, there can be no doubt as to the fact itself.

MR. BISHOP* has written on this subject, and believes that the most common form of stammering is produced when persons attempt to articulate the desired sounds without putting the glottis into vibratory action. He says, "that it is necessary to direct the patient to vocalise the breath so as to utter a continuous sound, as by singing a note in music." Mr. Bishop seems to have arrived at this conclusion from the fact that stutterers do not generally hesitate in singing. One great object, he continues, is to "enable him to exercise a voluntary control over the mental and vocal function simultaneously." As to the exciting cause of defective speech, Mr. Bishop says, "The most frequent cause of stammering is the imperfect education or training of the organs of articulation, and a deficiency in that sympathetic asso-

* *On Articulate Sounds, and the Causes and Cure for Impediments in Speech.* By John Bishop. 1851.

ciation, which ought to subsist between the articulating and vocal organs."

Remarks.—Mr. Bishop seems to lay much stress on the alleged fact, that there is no stammering in singing. It will elsewhere be seen that I do not admit this as a fact, as I have met with persons who did stammer in singing. Any opinion as to the feasibility of such a plan for the cure of stammering, as that proposed by Mr. Bishop, must be left to the judgment of my readers to form for themselves. Stammerers all know that they can nearly always speak in an assumed or chanting tone; they, therefore, do not desire to learn this, but they want to speak plainly and naturally.

Dr. EICH of Pesth,* has published his views on this subject, and they deserve record from their practical nature. He very justly contends that in all cases a correct diagnosis is necessary, as well as an exact knowledge of the intellectuality of the patient. He says, "It is generally assumed that the chief cause of this evil is the more or less abnormal physical quality and abnormal functions of the direct organs of speech. My experience has, nevertheless, shown me, that in many, nay, in most stutterers, the organs of speech open to examination are in a healthy state, though

* *Die Heilung des Stotter-Uebels. Cure of Stuttering.* By Dr. Eich. Pesth, 1858.

the infirmity was present in a high degree. The abnormal function of these organs must, therefore, arise from other circumstances. In most of these cases the infirmity dates from early childhood. The tender infant, not yet exercised in speaking, finds it difficult to produce certain sounds; it enunciates them in a faulty manner, and consequently all words in which they occur. With the advance of intelligence, or in consequence of admonitions, the child now makes efforts to articulate more correctly; but both the relaxed state and the excessive strain upon the organs of speech weaken them, and stuttering results. The defect must then be remedied according to the cause that has occasioned it.

“ If some persons cannot properly enunciate a word, it is not this particular word, but mostly a single sound which occurs in it. When, for instance, individual letters such as k, r, t, z, cannot either correctly or fluently be pronounced, the patient cannot enunciate easily the words in which these consonants commence the words or occur in repeatedly. We do not assert that the evil which has arisen in this manner can be immediately removed by directing our attention to the correct enunciation of the defective sounds, unless the treatment has commenced in early childhood, when the evil is confined to but a

few faults, and has not yet extended to all the organs of speech.

“ If the stutterer has reached the second quinquenium, the abnormal functions have already become so much subject to habit, and the treatment must then embrace all the sounds as well as those which are peculiarly difficult to the patient.

“ With regard to the question as to the origin of the abnormal functions of the organs of speech, a variety of causes may be enumerated. In some cases the evil arises from malformations of all kinds in the organs of speech; in other cases from an abnormal process of thought in the stutterer; and in earliest childhood from fright, anxiety, or mental weakness; but still more from the circumstance that parents force their children to pronounce words and phrases of which they have no notion, without giving them time to meditate on them. In all these cases stuttering depends on abnormal function, whatever may have been its cause. It is evident that for a rational and radical cure, the nature of the evil and its cause must be known. The causes of the abnormal function of the respiratory organs can be explained by the disordered function of the organs of speech.

“ The stutterer frequently complains of a pressure upon the lungs, of a tightness about the chest, and

many assert that the stutterer attempts to speak during inspiration, in which he fails, so that he cannot pronounce a word. But, on strict examination, it is evident that no man can speak during inspiration. Every man effects the enunciation of words whilst the air escapes from the lungs, which is equally the case with the stutterer. That the respiratory process is in many stutterers abnormal cannot be denied, only we must not confound the form of the evil with the evil itself, or with its cause. Instead, therefore, of saying that stuttering arises from a wrong mode of respiration, it should be said,—abnormal respiration arises from stuttering, and this, again, from abnormal functions of the direct organs of speech. The truth of this assertion is easily ascertained, in observing a stutterer at the moment he attempts to speak and fails. He sets in motion all organs of speech, yet the intended word is not produced. During this effort his breath is stopped, and he feels pressure, either from the lungs being empty or filled with air; he either then gasps for air or endeavours to expel it, in the latter case he usually succeeds in enunciating some word. The disturbed respiration causes in these cases contortion of the facial muscles and other morbid affections."

Remarks.—The above remarks show that Dr. Eich

has had some personal acquaintance with stammerers. His opinions on the whole are sound and judicious. Dr. Eich seems, however, to have fallen into a rather common error in his supposition that it is impossible to speak during inspiration. The inspiratory voice is a rare occurrence; but still it is possible, and may easily be detected by its being about an octave higher than the ordinary voice. The first part of the cry of the donkey is inspiratory, and all ventriloquists occasionally speak when inspiring air into the lungs. With this exception Dr. Eich's remarks are valuable. His pamphlet, however, contains nothing new; but it is written with common sense,—rather an uncommon thing with very many writers on this defect.

DR. WOLF, of Berlin, who formerly advocated the use of the knife in some cases of psellismus, by a division of the nervus hypoglossus, has recently published his present idea on this subject.* He now says that "*stuttering is no disease*, but a morbid disposition, or an abnormal action of the organs of voice and speech. The cause of stuttering may either be in the nerves which govern the respective organs, or in the organs themselves; thus the partisans of either

* *Das Stottern, etc. Stuttering and its Cure.* By Dr. Philippe Heinrich Wolf. Berlin, 1861.

doctrine are right, but it is only on close examination of each particular case that we can determine the original cause." He now believes "that in stuttering we may, in most cases, obtain a cure without operation... In stuttering no deformity is generally perceptible... The more material the disease, the more material the treatment. Whether the cause of psellimus be in the nerves, or in the organs themselves, may soon be discovered by an attentive experienced person, provided he be fully acquainted with the physiology of voice and speech, for that is absolutely requisite to give a just opinion on abnormal action." Dr. Wolf contends there are three species of stuttering: first, that affecting the respiratory organs; second, the vocal organs; and third, the articulating organs. The last species, he says, has five subdivisions. He further observes, "In such cases, which resist all other treatment, I should nevertheless not hesitate to try the operation indicated by me, namely, the division of the nervus hypoglossus instead of a section of the tongue. I must, however, confess I have not met with such cases." There is little further worth mentioning, except that the author seems to advise the trial of a little of everything.

Remarks.—Dr. Wolf says the success of the gym-

nastic orthophonic treatment is undeniable ; but nevertheless he seems inclined to recommend the trial as adjuvants to half the drugs in the phar-macoœia. Our author appears to know just enough of the subject to mystify himself as well as his readers. There are, no doubt, some affections of the voice for which Dr. Wolf's treatment would be beneficial, but beyond this his brochure does not indicate the slightest advance on the opinions which were in vogue in the year 1700, and publicly expressed by Amman. He only seems to have treated two cases of stam-mering, and he says that in the second case he only succeeded in enabling the subject to read or speak before persons known to him, and that he could not speak to strangers. That is very easily done in most cases ; but it would be most unfortunate for society if this were the only benefit that could be rendered. Very many of my pupils, when they first come to me, are always able to talk to their friends, and it is just the power to speak to strangers that they desire. It appears strange also that Dr. Wolf, writing at Berlin in 1861, should make no distinction between stammering and stuttering. No other of his coun-trymen of any consideration has made the same mis-take for the last thirty years. It was open to Dr. Wolf to defend the synonymous use of the words

stammering and stuttering, but he passes the matter over in entire silence.

Besides the foregoing various theories and modes of treatment, there have been many absurd methods proposed which I have not thought worth noticing. Much less have I pretended to mention all who have written on the subject. Were I to undertake a review of the works on stammering, it would be by no means a grateful task to have to expose the gross plagiarisms in many of the modern works on this subject. I am glad, therefore, to pass them over in silence. That quackery is as rampant as ever in this country we have too good evidence, from the reception given to every folly that any foreign or native charlatan can cram down the throats of the British public. If the enlightened public like, however, to pay their money for the excitement of being deceived, we can only regret their folly, and do all we can to establish more rational opinions on the subject.

I am not without hope, that the diffusion of the contents of this work will have the effect of guarding the public against the chameleon-like quackeries which continually endeavour to mystify this subject, and then feed on what they themselves aid to produce. As long as the public remain ignorant of

the physiology of voice and speech, so long will there be continually quack inventions professedly for the cure of stammering, but in reality for its increase. Dr. Klencke has also justly remarked, that ignorance of the real physiology of the vocal apparatus, was the cause of those "many confused explanations and erroneous modes of treatment, and a host of quackeries which still prevail, and are still practised by travelling stutter-doctors, with or without diplomas." He also says: "When one has come into contact with many stutterers, it appears singular how the difference between stuttering and other defects could have so long escaped detection and led to so many errors. There appears to be no doubt that most operators and stutter-doctors had seen but few cases of real stuttering, or had looked at the evil from merely a surgical standpoint, or were prejudiced by theories. When, many years ago, I gave vent to my theoretical scholarship, and when stutterers of all sorts applied to me, then I began to feel how barren mere theory was. When I sat among my stutterers, and thought of the many high-sounding phrases contained in the pamphlets for and against the tongue operators, everything appeared so cloudy; nor could I refrain from smiling at the narrations of my pupils, who had been, according to their account, to purchase

gargles at one dollar the bottle, or embrocations, or machines, or had taken two lessons a week from an elocutionist. It must not, however, be believed that they universally fell into the hands of speculators ; on the contrary, many had been in the hands of physicians of great repute, men whom I esteem highly."

Perhaps much of the confusion which has arisen respecting the nature and treatment of impediments, has been produced by many men writing on these defects who have themselves suffered from them. Indeed, I believe this to be a clue to much of the mystification that exists respecting these defects. I could enumerate a whole list of medical writers on stammering and stuttering, who have themselves suffered from some form of impediment. We therefore do not wonder to find that causes and symptoms have been blended together in such a lavish manner.

CHAPTER IV.

STATISTICS OF STAMMERING.

COLOMBAT* assumed that there were, in France, about 6,000 persons labouring under defective articulation, or nearly 1 in 5,000. There can be no doubt that the actual proportion is much greater. Colombat himself admits that he included in his estimation such only whose impediments were strongly marked. In Prussia, which in 1830 contained a population of about 13,000,000, the number, ascertained from the official returns of many places, was calculated to amount to more than 26,000 cases for the whole kingdom. According to this calculation, taking the population of the globe to amount to about 1000,000,000, the number of stammerers and stammerers would form an army of 2,000,000, of which London alone would possess nearly 6,000. It would be very desirable if the

* *Tableau Synopt. et Statistique.*

Registrar-General would employ the means at his disposal to ascertain the actual number of persons labouring under various impediments of speech in Great Britain, which, I have little doubt, would be found to approach the proportion of 3 in 1,000.

It is unquestionable that impediments of speech are far less frequent in females than in men. Itard declares he never met with a female stammerer, although he does not deny that such exist. According to Colombat, one woman only in 20,000 stutters, while the proportion, according to the same authority, in men is 1 in 5,000.

Reasoning *à priori*, one would imagine that stammering should be more prevalent among females than among males. If the cause of stuttering depends upon nervous susceptibility, and if it be nearly allied to chorea, females should suffer from it in greater numbers. Again, if, as some gratuitously assume, without a shadow of reason—that woman thinks more rapidly than man—the probable effect should be that the words would not keep pace with the thoughts. Aristotle (for Rullier seems to have borrowed the idea from him), considered that one of the causes of stuttering was, that the words did not proceed *pari passu* with the thoughts, on account of the flight of the imagination. Again, if timidity be one

of the causes of stuttering, the fair sex should, from their natural bashfulness, be more liable to it. Setting aside a theory of final causes, *viz.* : that nature, in order to compensate woman for her weakness, has bestowed upon her a powerful weapon in the gift of the tongue, we must, then, rest satisfied with the physiological fact, that the vocal and articulating apparatus of woman being more elastic and mobile than that of man, is less liable to be affected by some of the causes which produce the infirmity in the male sex. In illustration of this fact, it may be stated that the male voice rarely, if ever, reaches such a compass as that possessed by some female singers, such as Catalani, or Sessi, &c.

I have full reason to believe the above estimate far too low, at least, for this country. Many cases of female stutterers have come under my notice, some of which, of a very severe nature, required the greatest care in treatment. The habitual timidity of women, frequently aggravated by a derangement of the nervous system, tends to produce more intricate cases than in men, which require more time and patience to arrive at a successful issue.

It would be an interesting subject of inquiry, to ascertain, as far as possible, the influence of different languages and dialects upon the causation

of impeded articulation. At present, our data are insufficient to found on them any correct theory. It is presumable, that a soft flowing language may not produce such a per-cent-age of stutterers as a harsh and guttural one: climate and other circumstances may also have a considerable influence.

Colombat mentions that a son of Mr. Chaineau, the French Consul, in Cochin-China, born of a Chinese mother, and who, from his infancy, spoke the languages of both his parents, expressed himself with the greatest facility in the Chinese dialect, but stuttered much in speaking French, which he was chiefly in the habit of using. Colombat attributes this to the rhythmical structure of the Chinese, and the peculiar intonation required to distinguish similar words.*

It appears to me, that if it be true, as has been asserted on very slender grounds, that there are no stutterers in China, the circumstance is not so much owing to the sing-song, nor to the rhythmical structure of the Chinese language, but chiefly to its being a monosyllabic tongue.

In Great Britain I think there is an excess over the average amount of stutterers in the north, where our language meets the Gaelic. Where a mixed language

* See *Philosophy of Voice and Speech*, p. 185.

is spoken, the majority are unable to speak the one or the other perfectly, and the result is, that they find a difficulty at both, whence arises a certain hesitation, the forerunner of stuttering. If this be true, we might, *a priori*, expect a large number of stutterers and stammerers at the frontiers of countries in which the languages differ: but I am not aware whether such be the fact.

Dr. Klencke says he found that most of his cases came from heathy and marshy lands: generally from plains; then from mountainous parts, frequently with a touch of cretinism; the fewest stutterers came from high table lands and woody hills.

The question, whether stammering only affects civilized peoples is one of very considerable interest. Most travellers, who have long resided among uncultivated nations, maintain that they never met with any savages labouring under an impediment of speech.* Granting it to be so, it is not easy to say

* In the first edition of this work, I made a general statement that defective speech was the result of civilization, and that savages did not stammer. But from the following it will be seen how necessary it is that a correct and exact meaning should be given to the meaning of the words "stammering" "savages," and "civilization," in making such a statement. For instance, are the natives of the west coast of Africa savages? Are they civilized? Without attempting a definition of these terms, it may generally be stated that on the west coast the natives have had a certain amount of in-

whether this immunity is owing to the more ample physical development of the buccal cavity in savages,

tercourse with civilized Europeans. Besides this, at Sierra Leone the poor wretches who are captured in slaves are there released. The slaves are sent away from the interior with all sorts of disease. I was therefore prepared to believe that at Sierra Leone there would be a considerable amount of disease. But I was not prepared for such a sad picture as that given by my friend Mr. Clarke, of the vast amount of disease which exists on the west coast of Africa generally.* In the papers noted below, he successfully refutes the prevailing opinion that the uncivilized are less liable to disease than the civilized. Indeed, he has clearly established the fact that the negro race, with the exception of being exempt from yellow fever, suffer from quite as many disorders as the European races. Mr. Clarke writes: "The proportion of persons with distorted spines, which gives rise to the hunchback, and also with talipes or club-foot, are quite as often met with as in Europe." Our author also says that mania, apoplexy, epilepsy, chorea, delirium tremens, are of common occurrence, and that they suffer severely from disease of the lungs, skin, and bowels." In such circumstances we could not be much surprised to read, "Stammering is a defect very common amongst the people; but it is affected by many among them, as it is considered *fashionable* to stammer. Persons with hare-lip, and tongue-tied infants are quite as common as in Europe." Nearly two thousand years ago Ovid also said it was fashionable for the people of Europe to stammer, especially females! We suppose ere long it will also only be fashionable with the females in Africa!

* See *Remarks on the Topography and Diseases of the Gold Coast*. By R. Clarke, late of Her Majesty's Colonial Medical Service, in a paper read before the Epidemiological Society, 1860. Also "Short Notes of the Prevailing Diseases in the Colony of Sierra Leone," read before the Statistical Section of the British Association at Glasgow, Sept. 1855. *Statistical Journal*, vol. xix, part i, March 1856.

to the nature of their dialect, or to their freedom

Wishing for further information on this interesting question, I wrote to Mr. Clarke, and received the following interesting facts in reply.

"At Sierra Leone the black population speak fifty different dialects, almost every tribe in West Africa having representatives there, stammerers and stutterers being quite as numerous amongst them as in Europe, and, in the majority of them, these defects had existed from childhood. On the Gold Coast I had the best opportunities of seeing and observing the different races inhabiting it, not only in my medical capacity, but as Act. Judicial Assessor, and I can safely declare that scarcely a week passed without my noticing this affection in the persons of plaintiffs, defendants, or witnesses. In several instances the hesitancy was so great and prolonged that the features were to some extent convulsed, the effort made to utter being in the highest degree distressing, and when overcome, utterance was as it were delivered in gulps.

"In a good many persons it has been induced later in life, as at Sierra Leone, from smoking 'diamba' or Indian hemp, and both there and on the Gold Coast, perhaps from the habit of drinking large quantities of ardent spirits. I do not at present recollect any instance of its occurring from fright, but no doubt such cases do happen from the overwhelming and cruel influence exercised over their minds by the Fetish priests and priestesses.

"The imitative faculty, so strongly developed in the negro race, has led some of the blacks and coloured people to acquire stammering, thinking that because Europeans holding high rank upon the Coast sometimes are so affected, it is therefore an attainment fashionable in Europe.

"The word 'savage' is not easily, as you justly state, defined, but primarily means sylvan or wild. In my opinion the slaves landed at Sierra Leone from the slaves' hold, in a state all but nude, are barbarians or uncivilized, and so, indeed, are several tribes upon the Gold Coast. Yet none of these peoples are without a strong sense of natural justice. They one and all are governed

from mental anxieties and nervous debility, the usual

by rude laws perfectly suited to their condition, and which, when they are fairly administered, are not repugnant to humanity. Superstition it is that works the mischief, being used to pervert their laws, and by false accusations of witchcraft consigns its victims to slavery or to be sacrificed to their infernal gods."

In speaking of civilization, we must bear in mind that there are two different kinds—the healthy and unhealthy. The same influence which tends to produce the mental or physical derangement, will also be likely to produce defective speech. A philosophical physician has made the following remarks on this subject. Speaking of the increase of mental diseases in civilization, which he contends is an undoubted fact, he continues :*—

"It is not civilization, but the increasing want which it brings in its train ; partial education, passions, emotions, &c., all which set the mind in passive motion ; the forced culture to which they lead ; the over-indulgence,—these contain the reasons of this fact. Civilization, as external education, is but a transition to culture as internal education ; and in this first stage it produces evils for which it furnishes the remedy in the higher stages. It carries the poison and the antidote in the same hand. The industrial impulse of the present time, for instance, by the hazards to which it exposes the opulent classes, is one of the occasioning momenta, while, by the activity which it excites, and by doing away with isolation, it is one of those which is counter-acting and salutary. If savages show such a happy exemption from insanity, they are indebted for it, not merely to the want of civilization, but probably also to the indomitable energy of their corporeal vitality. Of all passions, ambition in men and love in women (especially through jealousy) are the principal springs of insanity. Goethe says very judiciously, 'nothing brings us nearer to insanity than distinguishing ourselves above others ; and nothing

* *Medical Psychology.* By Baron Feuchtersleben, Sydenham Society, p. 264.

concomitants of refinement and civilization. My im-

preserves the even tenor of the understanding so well as a general intercourse with many people.' In Russia the class of officers in which the greatest eagerness for rank prevails, comprehends the greatest number of insane persons."

An interesting account of a negro girl stammering, was given to me by a Turkish gentleman, who recently consulted me respecting an impediment in speech under which he laboured, and who greatly pressed me to go to Constantinople, as there were so many stammerers there. He said one of the slaves of his wife was a young African girl, who stuttered very badly, and who weeps continually because she cannot speak properly. Her defect came on after a fright, produced when she was captured before being brought to Constantinople.

The following interesting particulars of a defect which exists amongst some African tribes, are given by M. Eugene de Froberville, who says:—

"Among the Niambana Negroes,* in the north of Caffaria, whom I consulted for my vocabulary of the Eastern Negro tribes, I met with one whose stuttering enunciation was very peculiar. This Negro always interpolated in every word the syllable 'shil.' Thus the word *Niambana* became in his mouth *Nia-shil-ambana*, *Kuetlé* to sleep, *Kuetlé-shil-ele*, *Tuhuni* (wood) *Tuhu-shil-uni*, &c. I, at first, thought that the man laboured under a defect of speech, and was about to dismiss him as unsuitable for my object, when I observed that, when he took the trouble, he could enunciate the words without interpolation. I recollect a passage in the description of the voyages of Arbousset and Dumas, who visited the countries north-east of the Cape Colony, in which it is said 'Certain Negro tribes, with incised nostrils and artificially pointed teeth (my Niambana Negro presented the same peculiarities) are by the Southern Kaffirs called stammerers.' Subsequently I observed among other Niambana Negroes the same kind of stuttering. The interpolated syllable was not the same among all tribes, but the

* Bulletin de la Soc. Géogr., Juin 1852.

pression is, that the latter circumstance offers the best explanation of the alleged fact.

principle was the same. The stuttering of these Negroes resembles much that of children, who make the first attempts at speaking. It appeared to me that it was owing to a certain imperfection of the organs of speech, and that they interpolated a strange syllable to gain a *point d'appui* (a fulcrum).

"Mr. Antoine d'Abbadie writes to me that both the gipsies as well as the Abyssinians insert some arbitrary syllables between two syllables in order to render their language unintelligible to the stranger. The Abyssinians call this method, by which the Amhara language is rendered unintelligible, Zabaza, and insert the syllable *ba*. Schoolboys frequently adopt a similar method. I have convinced myself that the Niambana Negroes do not use this intercalation for such purpose, but to facilitate their enunciation. The fact, however, is very singular, especially as the Eastern Negroes have a fine ear and are very careful of correct pronunciation. I believe, therefore, as I stated, that a certain nervousness and imperfect organization may be one of the causes."

CHAPTER V.

ON SURGICAL OPERATIONS FOR THE REMOVAL OF
STAMMERING AND STUTTERING.

Joubert* endeavours to show that operations for defective utterance are not so new as is generally believed. Galen (200 A.D.) speaks of the thickening, induration, and shortening of the tongue, as influencing articulation, and recommends cauterization. Aëtius, four hundred years after Galen, also speaks of tongue-tied.† Paul of Ægina‡ advises the division of the ligature.

In 1608, Fabricius Hildanus operated upon his little brother, who, at the age of four years, could not pronounce a word on account of the shortness and thickness of the frænum, by which the tongue could not reach the teeth and the palate. Dionis, in 1672, proposed to make two or three small incisions in

* *Historical Researches.*

† *Aneyglossi.*

‡ In his *Opus de Re Med.*

the tongue of children who seem not to articulate easily. All these operations appear, however, to have been confined to the division of the *frænum*, an operation as old as surgery, which has even been performed by mothers and nurses.

It was reserved for modern surgery to extend the operations to the muscular apparatus of the tongue, and Dieffenbach is generally considered as the chief authority for the practice.

DIEFFENBACH* says, "The idea of curing stammering by means of an operation, first presented itself to my mind on being requested, by a patient cured of strabismus, to operate upon him for defective utterance. My attention being directed to the subject I remarked, indeed, that many persons affected by strabismus, had at the same time an impediment in their speech. As I was of opinion that the derangement in the mechanism of articulation was caused by a spasmodic condition of the air passages, which extended to the lingual and facial muscles, I conceived that, by interrupting the innervation in the muscular organs which participate in this abnormal condition, I might succeed in modifying or completely curing it."†

* In his Letter to the French Academy, March 1841.

† Though there may be cases in which squinting is concomitant

AMUSSAT also claims the honour of applying surgical operations for the cure of defective utterance.* He writes that he conceived his idea of the method of dividing the genio-glossi as an extension of the operation for squinting, and that he communicated the idea to Mr. Philipp, when no one at Paris knew that it was treated so in Germany. Malebouche, on the other hand, says that Mrs. Leigh had advised it, and that it was acted upon, years before, in America.

DR. R. FRORIEP† again conceived that the local cause of stammering was the retraction of the lingual muscles on one side only, which may be detected by the form of the tongue and the neck. He therefore confined himself to dividing the genio-glossus on one side only, and attributed to this mode his own success, whilst the division of both these muscles by Bonnet and others led to no certain results.

Whether, or not, Dieffenbach first introduced the practice, certain it is that the example of so high an authority gave rise to a host of operators, who by cutting different ways, aspired to the honour of being the inventors of some new method. They divided with psellism, they are exceptional, and have little or no relation to each other, whilst by interrupting the innervation, the respective parts are not merely modified, but paralysed in their functions.

* In his Letter to the French Academy, Feb. 1841.

† Froriep's *Notizen*, 1841.

themselves in castes. Philipp and Velpeau followed Dieffenbach's or the German method. Amussat, Bonnet, Petrequin, and Robert in Marburgh, divided the genio-glossi and genio-hyoidei; Langenbach in Goettingen, the stylo-glossi and hyo-glossi, and Wolf the nervus hypo-glossus. The English surgeons chiefly confined themselves to the excision of the tonsils and the uvula. The greatest zeal was exhibited in France, where not less than two hundred persons were operated upon within one year. The rage* for operations spread to America, where Dr. A. Post performed the first operation, May 1841, by dividing the genio-hyo-glossi near their origin. Drs. Mott and Parker, of the New York University, divided the genio-hyo-glossi either by the knife or scissors, cutting closely to the symphysis of the lower jaw. In many instances the patients seemed immediately to be much benefited, and spoke with fluency. A few hours, however, dispelled the delusion, and they found themselves as bad as ever. Dr.

* "He must be a young surgeon who has not witnessed an operating mania; he must be a young physician who has not felt the pressure from without of a new and fashionable drug. Some thousand operations have been performed on man and woman, the greater number, seemingly, without a reason or excuse; the profession is entitled surely to be made acquainted with the results—results which, I fear, when known, will be found to be, though remote, not less melancholy."—Harvey, *On Excision of the Tonsils*.

Detmold passed needles through the tongue, and the same improvement followed, but as in the rest the impediment returned.

The utility of these operations has been deduced from their successful application in squinting, wry-neck, and clubfoot. The premises were wrong, and the conclusion false. In these affections the evil is *permanent* and always associated with a contraction or shortening of the respective muscles. Stuttering is, on the contrary, frequently temporary; were it the result of an organic defect it would be equally permanent. Dieffenbach found no organic defect in sixteen cases upon which he operated, nor were there any found in forty cases treated by Blume. Since, then, the seat of stuttering is not in the tongue, it follows that all operations on that innocent organ are useless. No doubt, the patient frequently ceases stuttering, either from the shock upon the system, or from his strong faith in the efficacy of the operation; but after the wound is healed up, he relapses into his old habit.*

* Schulthess cites a case of a young workman, a stutterer, whose arm was crushed by machinery so as to require amputation. He remained free from stuttering during the time the wound was suppurating; but the infirmity returned on its being healed up. Klencke also quotes several cases in which stuttering ceased in wounds of the vocal organs, but returned when they healed up.

Nor is it true, as asserted by some surgeons, that stuttering frequently results from an abnormal condition of the tonsils and the uvula, and that the excision of these organs would relieve the impediment. Tumefaction of the tonsils exists in most cases, without producing stuttering, while few stutterers have enlarged tonsils ; nor if they have, is it the cause of the infirmity. We may, however, admit that hypertrophied tonsils, or an abnormal condition of the tongue, the palate, and the uvula, may and frequently does give rise to defective articulation of certain sounds ; but never are they the cause of stuttering. There is then something in a name, *i.e.*, in an exact definition of these affections ; for from the confusion of the terms arose the confusion in their treatment.

Besides organic defects, the cause of stuttering has also been attributed to the defective action of the muscles of speech, that is, either to debility or to

Speaking of operations he says, " But when the wound healed up, the articulation of the consonants again predominates, and he stutters as before. The operators, however, say that they produce an alteration in the muscular and nervous fibres. I have had stutterers who have shown me the scars, but no alteration had taken place, nor have I seen a single case cured by division of the tongue muscles. If such an alteration really occurs, it would only be an auxiliary means, paving the way for a cure."

spasmodic action. Debility cannot be always the cause, otherwise age, wounds, issues, which weaken the muscles, would increase the infirmity, and not, as experience shows, diminish it. Debility may cause a bad enunciation of individual sounds, but certainly not stuttering. Nor is the local spasm of the glottis the proximate cause; as affections of the larynx rarely cause stuttering. All reasoning on this subject has been in a circle, and it might as well have been said a man stutters because he stutters.

DR. CLESSEN,* a distinguished German surgeon, who performed a variety of operations, says, "Although the results of my experience would lose nothing by comparing them with those published, assuming them to be strictly true, still I am so little satisfied, that I have undertaken no operation of the kind since June 11th, though a number of afflicted persons vehemently desired it. I consider it my duty to dissuade all from performing such operations, as it is exceedingly rare that the fault is in the action of the muscles, or that the evil is remedied by dividing them."

The efforts made by my late father to put a stop to such operations† in England, supported by the

* Casper's *Wochenschrift*, 1841.

† The following is a summary of surgical operations which have

unsatisfactory results obtained, proved after a time successful, so that at last the practice was discountenanced by all the most eminent members of the profession. In support of which I may quote the following passages from a leading medical journal.*

“The sanguinary operations which have recently been devised and executed, with the view of curing stammering, are one of the greatest outrages upon modern surgery. Although some of them had their origin in legitimate motives, most, we fear, serve but to show what ruthless expedients will be occasionally resorted to for the purpose of acquiring professional fame, however short-lived, and to what extent the ignorant and the credulous will become a prey to

been from time to time recommended in various cases of defective articulation :—

1. Inability to enunciate the lingual *r*.

(*Transverse incision into the upper surface of the forepart of the tongue.*)

2. Inability to enunciate the palatal *r* or *ch*.

(*Incision into the stylo-glossus, glosso-palatinus, with or without the excision of a triangular piece.*)

3. Excision of a prismatic or longitudinal piece from the tongue, if it be too voluminous.

4. Inability to pronounce the hard *g*, *k*, and *n*, *g*.

(*Division of the genio-glossi and the genio-hyoidei.*)

5. Imperfect articulation of *d*, *t*, *s*, *z*, in consequence of the tip of the tongue not reaching the incisors.

(*Division of the genio-glossi.*)

* *Brit. and Foreign Med. Review*, vol. xii.

craft and subtlety. If our indignation was awakened at the barbarous cruelties practised upon dumb animals for the sake of elucidating the truth of physiology, how much more ought it to be when we consider the multitudes of our fellow-beings who have suffered themselves to be maimed and mutilated at the instigation of individuals more remarkable for their reckless use of the knife than for the soundness of their medical science."

"It is ascertained that persons who have stammered in the highest degree, have been remarkable for the perfect integrity of conformation and structure of all the organs of voice and speech; while others who have laboured under a faulty or diseased condition of these organs have preserved their articulation unimpaired."

Mr. Bishop also says, "It appears to be wholly unjustifiable for surgeons thus to inflict wounds and mutilate organs upon mere hypothesis, more especially when the practice is at variance with the physiology of the part concerned in the defects of speech intended to be relieved." He also further well observes, "It is not, then, surprising that the extirpation of portions of the tongue, tonsils, uvula, and velum, should produce such a degree of mental excitement as to control for a time the vocal mechan-

ism ; but, after the excitement of the operation has passed away, the unhappy sufferers relapse into their former state of imperfect articulation."

But though it is now comparatively rare to hear of the operation of cutting out a transverse wedge from the tongue in cases of psellismus, there are still persons who submit to have their tonsils removed and the uvula extirpated for some imperfection in speech. The whole subject of operations of this nature is ably handled by Mr. Harvey,* who says, " Another defect, for which the removal of these bodies (tonsils) has been most strangely and unaccountably suggested, is defective utterance. Now, how such an expedient for removing that painful and distressing condition could enter the mind of any one I cannot conceive." That the operation of taking off the elongated uvula is also useless, there is ample proof given in the work from which I have quoted.

Enlarged tonsils are often found in young persons, but they grow out of it in time. In proof of this assertion, I quote from Mr. Vincent, who says, " I have seen very many cases of enlarged tonsils, producing the greatest annoyance in patients at fifteen, which have gradually assumed the natural size by the time

* *On Excision of the Enlarged Tonsil and its Consequences.*
By William Harvey, Esq., F.R.C.S., etc. Renshaw.

the subject arrived at maturity. If we consider the great utility of these glands in secreting a mucus of a peculiarly lubricating fluid, so valuable in the economy of deglutition, I cannot regard it as a good practice to remove these parts so unsparingly as I have known."

Experience has shown me that inflamed tonsils and elongated uvula are often accompanied with stuttering; but on that being removed, this state generally ceases. The continual misuse of the organs, the violent action of the breath, which we generally find in stuttering, are quite sufficient causes to produce this result, which is, in most cases, only the effect: and on the cause being removed the effect will cease; at least, as long as the exciting cause remains no permanent good can be effected by anything. The cause may, however, be removed, but the enlarged tonsil may remain, and what was originally only a symptom must be treated as an original defect. If, however, the cause is removed and care given to the general health, it will mostly be found that enlarged tonsils and elongated uvula, produced by misuse of the vocal organs, will then return to their normal condition.

CHAPTER VI.

IS STAMMERING OR STUTTERING A DISEASE ?

THE plea so long urged by medical authors that impediments in speech are *diseases*, and lie, therefore, within the province of medicine, into which no layman has a right to enter, is now generally abandoned; and is at present only advocated by a few antediluvian practitioners.

On this point my late father wrote thus:—

“ I deny that stammering is a disease. It is an imperfection occasioned by organic, physical, or accidental causes—the want of some proper regulation or use, and not a disease—though the fruitful source of many diseases, some of which, by re-action, may be confounded with the original cause, such, for example, as palpitation of the heart, derangement of the nervous system, pulmonary affections, all inducing constitutional debility, both physical and mental, and frequently ending in premature death.

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These are the effects of stammering; but therefore to call a misapplication of the tongue, the jaws, the throat, or the breath, a disease, appears to me a ridiculous error."

It is remarkable that the question whether stammering be a disease has already been discussed by the ancients. Thus we find in Gellius that stuttering and stammering are rather vices than diseases, just as a biting and kicking horse is vicious, but not diseased.*

Ulpian says, It is asked whether the stammerer, the lisper, and such as hesitate in their speech, and the halting, are sound? I am of opinion they are.†

It may be safely asserted that no *idiopathic* stammerer was ever cured by a mere therapeutic treatment. Physician, cure thyself!‡ Now, it is a somewhat curious fact, that there are still alive some eminent physicians, who, having been stammerers, wrote books on impediments of speech, giving very learned reasons as to the how and why they and others stuttered, but were not delivered from their infirmity until they condescended to place themselves

* Balbus autem et atypus vitiosi magis quam morbos, ut equus mordax aut calcitro, vitiosus non morbosus est.

† Quæsitum est aut balbus et blæsus, et atypus isque qui tardius loquitur et varus et vatus sanus sit? Et opinor eos sanos esse.

‡ Medice te ipsum cura!

under the care of a layman, who had made the subject his exclusive study.

As Dr. Klencke has recently well observed, “ All theories (important though they be for science) can effect nothing in practice. All stammerers, before they came to me, had been treated by physicians according to the excito-motor or irritation theory, and yet they stammered as before. The cure of stammering is one of those cases in which nothing is effected by means of the best theory and definition of cerebro-spinal life. I know of no cure effected by means of a direct treatment of spinal irritation. I consequently omit that scholastic basis which is found in my former writings, and rest here upon practical empirical soil ; for the cure of stammering is the chief point for the patient, he cares little for theory.”

And again he says, “ But even experience does not present itself easily, for stammering is a chameleon, like the remote cause from which it arose. The most severe stammering frequently appears so mild and insignificant, that we believe it easily remediable, while stammering in a milder form frequently exhibits itself by violent phenomena. This depends on individual peculiarities which I shall have to touch upon. I have had boarders who stammered so gently, that in the beginning of my experience I

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wondered that the parents attached so much importance to the defect; but subsequently I was struck with the obstinacy of this kind of stuttering, and frightened at its explosion when the stutterer was in a state of excitement."

The fact is, that unless a medical man has for years devoted all his energy to the subject, and brings to bear upon it an ample knowledge of the various phases of the disorder, founded upon rigorous deduction and extensive experience, combined with an intimate acquaintance, not only with the physiology of voice and speech, but also with the structure of language and effective delivery, he is not at all likely to benefit the stutterer.

Most rational physicians now admit, that discipline of the vocal and articulating organs, under an experienced instructor, is the only means of overcoming impediments of speech.

The following very sensible letter was written, (Dr. Klencke says), by a physician of great repute, and is well worth recording as a specimen of the experience of very many medical men.

"I have, worthy colleague, heard of your establishment for stutterers, and send you a subject, who has brought me to despair. I have treated him by all medicaments against cerebral and spinal irrita-

tion, spasms, tetanus, etc., in short, according to all theories. I have operated on his frenum, and an indurated tonsil; I have sent him to an elocutionist; but he stutters, I believe, now worse than before. I perceive now that we must have a *practical* knowledge of stuttering, and devote our time to it; and that a physician who is in great practice, who has no opportunity of observing many stammerers simultaneously, and cannot devote to them all his time, cannot combat this rebellious evil, as I have arrived at the conviction that stuttering is a complex of many symptoms, requiring the treatment of the *whole man*."

But while I deny that stuttering is a disease, I admit that cases of defective speech do occur, requiring, in the first instance, the aid of the physician or the surgeon. When, for example, I have cause to presume that stammering is decidedly a symptom of a primary affection in some parts of the nervous centre, I never fail to recommend the applicant to consult a respectable physician. Again, if the defect can be clearly traced to defective organization, the surgeon must be called in to remedy it, if possible. But it is rare to find radical defects in the organs of either nervous stammerers or stutterers. If there be organic malformation we can soon detect this in the voice, and it may be discovered at once by the con-

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stancy of the affection. It is true that stuttering or stammering may accompany the defective articulation caused by malformation ; but imperfect organization rarely produces these defects, although it may increase them. On this subject Bansmann has remarked, " However frequently it may occur that defects exist in other organs, it is very rare to find such defects in the organs of speech. I may therefore boldly lay down the proposition that the evil of stuttering is never induced by abnormal organs of speech, but always by the wrong use of them. This assertion is already sufficiently proved by the fact that all stammerers can sing all the sounds, which were impossible if an organic defect existed, since an abnormality in the organ would equally influence articulation in singing." When a person has a cleft palate, science can supply the defect by an artificial palate, after which the patient still requires to be instructed how to make a proper use of the foreign organ ; in illustration of which I quote the following case :—

" Mr. D. P., æstat 17, has a genital fissure in the palate ; articulates very imperfectly. The sound of his voice was very unpleasant, and many of his words are unintelligible. Six months after the operation, Mr. P. had made no improvement in his speech,

when he put himself under the tuition of Mr. Hunt. In the course of a few weeks, an extraordinary change was effected; and ere long the articulation was so different that little more could be desired."*

Mr. Nelaton, it appears, however,† "declines all surgical interference in cases of this kind, and rests content with obturators and artificial palates. The chief object of the operation is to improve the articulation of sounds. It is a fact, however, that the opening may be closed without any very appreciable improvement in the utterance of the patient, and that this is the common result. This is the case equally whether the opening be closed by operation or by some mechanical contrivance, and this difficulty is only to be overcome, if it is to be overcome at all, by long and patient practice under a competent teacher. Is it not more judicious, therefore, if the same end can be attained with obturators and artificial palates, to spare the patient the pain and peril of an operation? Mr. Nelaton, for his part, is fully convinced of the advantages of the prudent line of conduct."

* *Extracts from Observations on Cleft Palate.* By William Fergusson, Esq., F.R.S., Professor of Surgery, King's College. The details of the case are given in vol. xviii of the *Medico-Chirurgical Transactions.*

† From *Journal of Pract. Med. and Surg.* 1862.

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There is a nervous affection, which, in more than one of its essential features, bears a great resemblance to some sorts of imperfect speech, namely *Chorea*, or St. Vitus's Dance, the characteristics of which are a want of control over the movements of the muscles of one or more of the limbs, the face, or the trunk.* Like stuttering, it usually occurs before puberty, and is frequently as little under the control of medicine as the irregular motions of the respiratory and articulating organs in defective utterance. Both increase or diminish under nervous excitement; and so

* The celebrated Dr. Mead made a curious observation on St. Vitus's dance, which is subjoined. Of the beneficial effects of the cold bath for this affection I hazard no opinion; but for cases of nervous stammering it is to be used with great caution. Besides the great irritation which stuttering produces in the lungs, there is often a nervous condition on which the effects of the sudden application of cold are injurious. Long experience has taught me that cold water does more harm than good in cases of nervous stuttering, but at the same time the cold bath is of service in some cases when judiciously applied. Dr. Mead says, "St. Vitus's dance is generally called a convulsive disorder; but I look on it to be rather paralytic, and to take its rise from a relaxation of the muscles, which, being unable to perform their functions in moving the limbs, shake them irregularly by jerks; and it is for the most part but a slight evil, and commonly seizes weak habits of body; girls more frequently than boys, and seldom adults. Wherefore I never found it difficult to be cured by the cold bath and chalybeate medicine." —*On the Power and Influence of Sun and Moon on the Humane Bodies, and of the Diseases that Rise from Thence.* By Richard Mead. London, 1712, p. 92.

apparently similar are these affections, that stuttering has been called a chorea of the articulating muscles. But it is remarkable that, from some not yet explained cause, chorea seems to be chiefly confined to the female sex, while the reverse is the case with stammering and stuttering. From the latest researches, chorea has been found to yield rather to gymnastic than to medical treatment, as will appear from the following extracts from a French periodical.*

"The first who employed gymnastics for the cure of St. Vitus's Dance were the priests. The patients were assembled after Mass, and made to dance to sacred music; plaints were sung, which obliged them to dance to measure. Recamier applied rhythm in numerous convulsive affections. He was of opinion that if the muscular motions could be rendered habitually regular by alternate contraction and relaxation, a cure might be effected. For this purpose, he assembled his patients at night at the Place Vendôme and made them follow the drummers, beating the tattoo. Any other instrument, for instance the metronome, may be employed. We commence to make the patients execute, on command, motions with one arm or one leg, after which we proceed to combined movements. Then follow rapid movements, which

* *Archives Gén. de Médecine*, 1854.

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are by far the easiest, there being no sufficient interval for the choreic uncertainty to supervene. Finally, we make them execute combined slow movements. * * * *

“ M. Sée reports that of twenty-two children treated exclusively by gymnastics, eighteen were cured in twenty-nine days.

“ The results were less satisfactory when medicaments were administered. M. Blache, Physician to the Hôpital des Enfants, concludes his *mémoire*, read before the Académie de Médecine, as follows:—
1. That no treatment is so efficacious in chorea as the gymnastic, whether applied alone, or in combination with the sulphur bath. 2. That the former can be employed in every case, whilst other remedies are frequently counter-indicated. 3. That in the gymnastic treatment amelioration becomes apparent during the first few days. 4. That whilst the disorder disappears the constitution generally is greatly benefited.”

Thus it would appear that even in those cases, where stammering or stuttering either results from, or co-exists with chorea, systematic exercise of the various organs, judiciously applied, will not only cure the stammer and the primary affection, but will greatly improve the constitution. It has ever formed

part of my system to combine oral instruction with the practical training of all the organs, directly or indirectly concerned in the production of sound and speech, by means of appropriate gymnastic exercise calculated to strengthen the respective organs, and to bring them under the control of the pupil; and I have the satisfaction of knowing that few have left my establishment without great improvement in their general health.

On this point I also quote the following:—"A stammerer's life is (unless he be a very clod) a life of misery, growing with his growth, and deepening as his knowledge of life, and his aspirations deepen. One comfort he has truly—that the said life is not likely to be a long one. Some readers may smile at this assertion. Let them think for themselves. How many old people have they ever heard stammer? I have known but two. One is a very slight case; the other a very severe one. He, a man of fortune, dragged on a painful and pitiable existence—nervous, decrepit, effeminate, asthmatic—kept alive by continual nursing. Had he been a labouring man, he would have died thirty years sooner than he did.

"The cause is simple enough. Continued depression of spirits wears out body as well as mind. The

* Extracted from the *Irrationale of Speech*. *Fraser's Magazine*, July, 1859.

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lungs, never acting rightly, never oxygenate the blood sufficiently. The vital energy, (whatever that may be) continually directed to the organs of speech and used up there in the miserable spasms of misarticulation, cannot feed the rest of the body : and the man too often becomes pale, thin, flaccid, with contracted chest, loose ribs, and bad digestion. I have seen a stammering boy of twelve stunted, thin as a ghost, and with every sign of approaching consumption. I have seen that boy, a few months after being cured, upright, ruddy, stout, eating heartily, and beginning to grow faster than he had ever grown in his life. I never knew a single case of cure in which the health did not begin to improve there and then."

The intimate relations of body and mind, and their mutual dependence upon each other, are constantly manifested in the phenomena of utterance. Thus in many cases the infirmity is increased or diminished, according to the impaired or healthy state of the digestive and other functions. If it cannot be denied that nervousness may produce stammering or stuttering; it is not less true that stuttering will produce nervousness, and, in the course of time, organic disease. In such cases the cure of stuttering will tend greatly to re-establish health. I have known it arrest the progress of pulmonary disease, while in

every case, its removal has had the effect of calming and invigorating the whole system.

A friendly critic has intimated that I have painted the distress which stammering sometimes induces in too strong colours. He says, "A terrible picture is given of the consequences of the disorder, moral and physical, but rare indeed must be the case where stammering ALONE causes either abject despondency, dyspepsia or hypochondriasis; on the other hand, how frequently are persons of a happy and merry disposition to be found among stammerers!"

No doubt it is quite true that persons who have some impediment in speech are often of a happy disposition, but they are not psychological stammerers. It is also true that stammering is only the remote cause of physical and mental disorders. The whole attention of the psychological stammerer is directed to "self." How many mental and physical disorders are produced by constant direction of the attention to one subject? Esquirol, and all other authorities who have written on the influence of the mind in the production of disease, fully admit that abnormal physical action is frequently the result of oneness of thought.* It would

* "Oneness of the affection and thought renders the actions of the melancholic uniformly slow. He refuses, indeed, all motion, and passes his days in solitude and idleness. *The secretions are no longer performed, or present remarkable disorders*, the skin is arid, with a dry and burning heat. Transpiration has ceased (in

be easy to prove, were it necessary, that I have not overstated the injurious influence of psychological stammering. Dr. Klencke has observed, in his first work on the subject, "that independent of the nervous irritation which stuttering induces, it influences injuriously the moral character. This is less perceptible in the lower classes, as in day labourers, artisans, etc.; but it is very distressing for those who have much intercourse with their fellow-beings, and is a perfect bar to many professions. Persons so situated become peevish, avoid society, and neglect their business."

Romberg also says, "there is an undeniable reflex action on the mind, for stutterers are irritable and shy."*

If the testimony of stammerers themselves were of any value, I have more than enough to convince any one. I quote the following extract from a letter—one of very many of a similar nature—as a case in point. I would only observe that the case described is not that of a man of education, but of a poor shop lad. He writes, "I am sorry to say that I am no longer in a position to think of applying to you for aid, for since I saw you my father has died. My

the body), while the extremities of the limbs are bathed in sweat."—Esquirol, *On Mental Maladies*. Translated by Miss E. K. Hunt, M.D.

* *Nervous Diseases of Man*. Sydenham Society, 1858. Vol. i, p. 364.

impediment is even worse now than it was then. The change is caused, I believe, by my having to speak more, for I am now in a situation, and I find it very hard, very hard indeed, to get through my day's duties, so that I am always glad when night comes ; but on the morrow I am just the same, and the mocking jeers of my shopmates add to my misery. 'Hope deferred makes the heart grow sick,' and I think it does. Sometimes I find a little rest and peace in solitude, other times in *drink*,* neither of which do me any good ; unfit for business, shunned by society, or rather *I shun it*, the world appears to me like a desert, till at last I have come to the conclusion that nothing but *death* will end my misery."

The action on the young is in some cases very marked, often stopping the growth.† I have known youths after the cure to grow two inches in three months which may be accounted for by the nourishment acting now in a natural manner on the system, which before was unduly appropriated to the support of the misused organs.

* The italics are the writer's own.

† "We have some reason to believe that the formative power of the tissues themselves may be diminished, so as to check the process of nutrition, even when the plastic material is supplied; and a diminution of it in that irritable state of the system which results from excessive and prolonged bodily exertion, or anxiety of mind. —Carpenter's *Human Physiology*. See also p. 160.

CHAPTER VII.

SYSTEM OF THE LATE MR. HUNT, AND PRACTICE OF
THE AUTHOR.

THERE exists, perhaps, a well founded prejudice against *secret* remedies. We may, in the abstract, admit that a person in full possession of a remedy tending to relieve any of the ills incidental to the human frame is morally bound to divulge it, and to look for a reward in his own conscience; even although a professional man's experience may be his stock in trade.

I have never made any mystery of the general principles of the system which I adopt. The great secret of my practice is in the application, and not in the system itself. My duty is to do all I can to effect cures of stammering; and I do not care to enter into any particulars of treatment which would, perhaps, have the effect of depriving sufferers of that confidence which they can alone obtain by *viva voce* in-

struction. I believe, therefore, I am consulting the best interests of those suffering from impediments in speech, when I refrain from entering into any particulars of my mode of treatment. This course does not certainly receive the approbation of the inquisitive or indolent; but it has gained the approbation of all the scientific men who have paid attention to this subject.

Secrets, however, though they may be divulged, cannot be easily communicated, for many secrets consist simply in the employment of superior tools, in the skill of the workmen, and in the ingenious mode of combination requisite for a variety of purposes.

The secret of my system is *experience*; it neither consists in an operation, in a charm, or a potion; its name is legion, according to the legion of shades which the calamity exhibits; for there is no affection which is so capricious, and so much defies correct description. I believe there is no one term which presents such extremes of differences, both in degree and in kind, as the word stammering, used in a comprehensive sense. Even if there were in this system an uniform system of rules, it would not be applicable to all cases, as there are no two persons who are physically and mentally constituted alike.

The stammer or stutter of one never exactly resembles that of another. Each case has its peculiar

symptoms and a physiognomy of its own. Just as the *timbre* of the voice differs in every person, so does the difficulty of one case differ from that of another. Simple of application as my system is in one case, it is intricate and complicated in another. But were it even possible to describe all the *minutiae* of a mode of treatment adapted to all imaginable cases, it would be useless, if not productive of mischief, unless the individual who applies it has qualified himself for the task by an extended practical experience.

When I first published my views on this question, there was a general clamour amongst many inquisitive persons, and also with some few well informed critics, because it was thought that I might have given a full detail of my mode of treatment. But each year, both the public and my critics have been less complaining on this head. Indeed, it is now generally understood, that I can no more give specific directions for all cases of defective utterance than an honest and scientific medical man can give one set of prescriptions for all forms and cases of any particular disease. It has been my endeavour to explain to the public the nature of defective utterance, and to remove the mystery by which it has been attempted to be surrounded by pretenders and charla-

tans. This object has been partially attained; but there is yet much to be done, alas! before parents, guardians, and even stutterers themselves, can be made fully to appreciate the necessity of rigid attention to general laws of physiology. Although for some years I stood alone in my declaration, that it was impossible to give written instructions for the cure of defective articulation, I am happy to find that this position is admitted by some of the best authorities, not only in this country but also on the Continent.

One of the latest writers on stammering, Dr. Eich of Pesth, thus expresses himself:—" After what has been said, it is evident that stuttering arises from a variety of causes, rather psychical than physical, and that a correct diagnosis in regard to their mental or bodily relations requires a sound knowledge of anatomy and psychology, without which all treatment would be a groping in the dark. Hence, it may be also explained why the evil cannot be cured by one pharmaceutic remedy, one surgical operation, or one method of instruction; but that the number of existing means of cure must be adapted and correspond to individual cases and their causes.

" This can only be effected in the best and surest manner in institutions devoted to this special object,

* *Stottern, etc.* By Dr. Eich. Pesth, 1858.

where the patient passes most of his time under the personal superintendence of his teacher, and where the corresponding means, which must be daily changed according to the diminution of the evil, are daily applied.

“ Only in such establishments, where all the means for investigating the causes of the evil, and for ascertaining the bodily and mental disposition of the patient are at hand, can the stutterer, as well as those labouring under other defects of the articulation, expect a permanent cure and a cheerful existence.”

All that I ever pretended to, was to have rigidly followed in the footsteps of my late father, who, by unshackling himself from preconceived theories and by taking nature as his guide, has established the basis of a method which has now stood the test of time, and the soundness of which becomes more and more confirmed by our daily increasing knowledge of the structure and functions of the vocal and articulating apparatus.

The eminent writer already quoted* gives his valuable opinion on this point in the following words:—

“ There is no secret in Mr. Hunt's 'system,' except in as far as all natural processes are a secret to those who do not care to find them out. Any one who will

* *Fraser's Magazine.*

examine for himself how he speaks plainly, and how his stammering neighbour does not, may cure him, as Mr. Hunt did, and 'Conquer Nature by obeying her,' but he will not do it. He must give a lifetime to the work, as he must to any work which he wishes to do well. And he had far better leave the work to the few (when I say few, I know none but my friend, Dr. James Hunt) who have made it their ergon and differential energy throughout life. Still less will those succeed who, having got hold of a few of old Mr. Hunt's rules, fancy that they know his secret. Old Mr. Hunt's secret was, a shrewd English brain, backed up by bull-dog English determination, to judge from the remarkable bust of him which exists, and which would have made him do many other things, had he chosen, besides curing stammering. And the man who tries to trade on his conclusions, without possessing his faculty, or having worked through his experiments, will be like him who should try to operate in the hospital theatre, after cramming up a book on anatomy, or throw himself into a pond after hearing a lecture on swimming. He will apply his rules in the wrong order, and to the wrong cases; he will be puzzled by a set of unexpected and unclassified symptoms, and be infallibly wrong in his diagnosis.

“ For instance, put two men before a second-hand pretender of this kind ; one of whom (to give a common instance) stammers from a full lung, the other from an empty one. Each requires to be started on a different method, and he will most probably (unconscious of the difference between them) try the same method for both ; while if the empty-lunged man have a hard, round chest, and the full-lunged man have a soft and flat one, he will never find out which is which. The matter is a study by itself ; and had Dr. James Hunt, in his book, told all he knew of the methods of cure, he would not have injured himself one whit—except in as far as he might have raised up a set of quacks whether medical or other, trading on his name, and bringing him into disrepute by their failure.”

Having devoted myself to a special branch of physiology, and witnessed the fruits of thirty years experience in my father's and my own practice, I feel now that it is my duty to carry out the system in a manner which shall compass the greatest amount of practical good. As already stated, my teaching interferes neither with the practice of the physician or surgeon. I pretend to nothing more than the employment of instruction and reason to remedy, in the vast majority of cases, these painful impediments

which constitute not only a barrier to the common intercourse and enjoyments of life, but to individual advancement in any class of professional or social pursuits.

This brings me to the consideration of the benefit that has been and may be derived from the perusal of books, professing to lay down definite rules for the cure of psellism, from whatever cause or causes it may have arisen. Persons who have not duly reflected on the subject, and ignorant that psellism does not arise from one but many causes, have felt disappointed that I have not given minute instructions for the removal of each individual defect.

In my *Manual of the Philosophy of Voice and Speech*, and in this, and former treatises, I have given abundant general rules in relation to the cultivation of the voice and the regulation of respiratory action. By studying these rules, an intelligent person possessing tenacity of purpose and self-control, may succeed in freeing himself from certain defects. But where there are severe faults of articulation, confirmed by long habit, the mere perusal of written rules and their application in attempts at a self-cure, will not only fail but actually *increase* the disorder, rendering it more complicated by the contraction

of other bad habits. I know from experience that the great majority of sufferers, who have applied to me for relief, had previously read and tried the multifarious plans recommended by a great variety of authors, and I had always greater trouble in curing these, compared with such as were free from any preconceived theory. The harm which some books have done is incalculable, especially to the nervous and sensitive sufferer. This is the experience of many of my pupils, who have studied every work on the subject of their affliction; trying eagerly the various systems therein laid down. The effect has been to produce such a morbid and confused state of mind,—from continued disappointment,—as to render them, in some cases, both disgusted with their infirmity, and incredulous as to the existence of any remedy likely to relieve them. Some writers have been tempted by the best and most charitable motives in sending forth their opinions, and have been quite unconscious of any harm that could possibly result from their books; yet, I have not the least hesitation in asserting, that the mischief they have done (by applying, as it were, a poison to the mind), is far greater than any benefit that, in a few exceptional cases, has been received. Each author gives entirely different directions on the course to be pursued for

the desired end; yet each asserts the infallibility of his own peculiar theory, while some writers give such a complicated description of the subject, that it cannot be understood; and the only point discoverable, is its utter unintelligibility to the general reader. All this produces mystification on the subject, and thus tends to envelop the science in greater obscurity than actually surrounds it.

It has been my endeavour in this work to say nothing but what can be fully understood by any man of ordinary education. In the history of the different theories and modes of treatment, will be seen the vast difference of opinion which exists on this subject; but I trust that my remarks may be sufficient to explain many of the inconsistencies and contradictions which are apparent to those who have studied the cause and cure of impediments of speech.

Nothing is more certain than that in inveterate and severe cases of stuttering, the pupils require, for a certain period, the constant aid of an experienced teacher, who, having traced the cause of the evil, adapts the treatment accordingly. This has always been a most important point in my own practice, as long experience has taught me the necessity for such a course. It is, therefore, with great satisfaction that I find Dr. Klencke, who is certainly the

best continental authority on this subject, fully agrees with me on this point. He says the cure of stuttering should not simply be undertaken by "teachers, elocutionists, decayed actors, and music-masters, who possess no physiological knowledge, have no notion of the causes and complications of functional derangements, and apply only a mechanical method, without reference to individual cases. But it is equally lamentable when we see physicians, travelling from place to place, drum the stutterers together like the recruiting officers, see them perhaps only once or twice, sell them some bottles for good payment, give them some advice, and then depart for other towns. Such physicians prove that either they have no idea of what stuttering is, or that their object is merely to get money. When, fifteen years ago, I opened my institution for the treatment of stutterers, it was from the conviction that I could be useful, but only by receiving the sufferers *into my house and family.*"

The main thing is to form a correct diagnosis; but this can only be acquired by long practice. The distinctive marks are frequently so blended that the superficial observer may consider two cases as identical which have scarcely any analogy to each other, and require an essentially different treatment. The com-

mon saying “a man who is his own doctor has a fool for his patient” applies equally to the stutterer.

It has ever been a fundamental error to assert that there is but one cause which produces the various degrees of stammering and stuttering, and consequently one remedy to be applied. The result has shown that all systems, which have been propounded on such a narrow basis, have been rendered useless. On the other hand, there is perhaps no affliction to which the human frame is liable, which has been attempted to be cured in so many different ways.

The famous pebbles of Demosthenes; a bullet in the mouth; a roll of linen under the tongue; the fork of Itard; the *bride-langue* of Colombat; the whale-bone of Malebouche; the stick behind the back; intoning; speaking through the nose; talking with the teeth closed; all these have been successively advised and applied to remedy faults which existed only in the imagination of the advisers. And if they produced any effect it consisted frequently in creating new defects. One thing is certain, that nearly every one of these contrivances seemed to lose its efficacy as soon as the secret was divulged.

Let me again quote the words of an eminent scientific writer.* “The elder Hunt’s ‘System,’ as he

* “*Irrationale of Speech.*” (*Fraser’s Magazine.*)

called it, is a very pretty instance of sound inductive method hit on by simple patience and common sense. He first tried to find out how people stammered ; and for this purpose had to find out how people spoke plain—to compare the normal with the abnormal use of the organs. But this involved finding out what the organs used were, a matter little understood thirty years ago by scientific men, still less by Hunt, who had only a Cambridge education, and mother wit to help him. However, he found out ; and therewith found out, by patient comparing of health with unhealth, a fact which seems to have escaped all before him—that the abuse neither of the tongue nor any other single organ is the cause of stammering—that the whole malady is so complicated that it is very difficult to perceive what organs are abused at any given moment—quite impossible to discover what organ first went wrong, and set the rest wrong. For nature, in the perpetual struggle to return to a goal to which she knows not the path, is ever trying to correct one morbid action by another ; and to expel vice by vice ; ever trying fresh experiments of mis-speaking, and failing, alas ! in all ; so that the stammerer may take very different forms from year to year ; and the boy who began to stammer with the lip may go on to stammer with the tongue, then with

the jaw, and last, and worst of all, with the breath ; and in after life, try to rid himself of one abuse by trying in alternation all the other three. To these four abuses—of the lips, of the tongue, of the jaw, and of the breath—old Mr. Hunt reduced his puzzling mass of morbid phenomena ; and I for one believe his division to be sound and exhaustive. He saw, too, soon, that stammering was no organic disease, but simply the loss of a habit (always unconscious) of articulation ; and his notion of his work was naturally, and without dodge or trick, to teach the patient to speak consciously, as other men spoke unconsciously.”

Treatment.—Before determining upon the treatment to be adopted, I make it a point to inquire whether any relatives of the patient labour under the same infirmity, and whether he stammers in singing. After a careful examination of the buccal cavity, and inducing the patient to move his tongue in every possible direction, I ask a few questions, and desire him to read passages of poetry and prose, in order to observe whether his difficulty lies in the enunciation of the lingual, labial, or guttural sounds, and also to see what mannerism or tricks have been acquired. The motions of the lower jaw, the elevation and depression of the larynx, the rhythm of the respiratory

organs during enunciation, and the action of the heart, require particular attention before we are enabled to form a correct diagnosis. The constitution, age, sex, the duration of the infirmity, the original cause of the defect, the mental disposition and moral habits of the patient, must all be taken into consideration before the treatment can be decided upon.

It will, in most cases, be found that the infirmity is simply owing to the misuse of one or more organs, which are employed either with too much force, or not used at all; the necessary result of which is dis-harmony between vocalization and articulation—the chief source of stuttering. Articulation may be normal, and vocalisation defective, and *vice versa*. To establish the requisite harmony between all organs concerned is the object to be aimed at.

If the question be asked, how it can be ascertained that the infirmity is not the result of defective organization, the answer is, by first inspecting the respective organs as far as we may be able; for such an examination mostly extends only to the organs contained in the buccal cavity.* But the actual proof

* Professor Czermak, of Pesth, has recently given some demonstrations with his laryngoscope, which is an improvement of a contrivance employed years ago by Garcia. The instrument is

that there exists no organic disease, is obtained by placing the patient, under certain new conditions, and observing whether his speech becomes more free. Does the patient both stammer and stutter? Does he stammer or stutter whilst singing or reciting? Is his articulation more distinct when reading alone, or talking to himself? What are his most difficult letters of the alphabet? Is the disorder intermittent or permanent? Now, whenever we find defective utterance yielding to altered circumstances, we may fairly take for granted that the structure of the organs has nothing to do with the impediment; for actual organic disease is known by the permanence of its symptoms, so that the subject ought then to stammer or stutter under all circumstances.

There may, however, be nearly continual stuttering without any organic defect. Some sorts of stammering have all the symptoms of an intermittent affection, while others appear chronic. The intermittent form is produced by psychical influences, and persons who have this kind suffer far more than those who have a continual or chronic type of stammering.

introduced with great care below the uvula, and a little mirror, the back of which is in contact with the uvula, enables the larynx to be completely seen. Much new light has been thrown on the diseases of the larynx: but it is not likely to give us much new information on the functions of the larynx in speaking.

The chronic species is, however, very disagreeable for strangers to hear ; but, at the same time, it does not produce that painful sympathy with the persons which we feel in psychical cases.

In seeking for the cause of stammering we must bear in mind that the original cause is often of little consequence, inasmuch as the exciting cause may have ceased to exist, and the defect continues through association or habit. A writer* on this subject has well observed : “ Suppose you could remove all the ultimate causes of stammering, free speech would not, I imagine, be the immediate result; for old habits have to be replaced by new ones, and association of ideas would still affect the speech, even were it possible to remove all mental emotion.”

This is true in some cases, but only a qualified and partial assent can be given to such a general proposition. The ultimate with the proximate cause may exist together. No one, however, can gainsay the proposition, that old habits must be replaced by new ones. Just as Dr. Chalmers talks in the moral world of the “expulsive power of a new affection,” so much we use the expulsive power of a new habit.

Psychical Treatment.—It is admitted that the exciting cause of speech is the mind, so that perfect idiots are

* *On Stammering.* Bac. Med. Oxon., 1850.

mute from the absence of the intellectual stimulant. The mind is thus the master of speech, and through it alone can we act on the organs necessary for the process of articulation. When we lose our control over the mind, we have none over the bodily organs under its influence, and an improper action is the result.

Now most of the methods recommended have that in common, that they leave the psychical element nearly out of sight, being almost exclusively directed to the action of the vocal and articulating organs, and thus want one of the most important means for ultimate success. Dr. Klencke expresses my own opinion when he says, "Experience has strikingly shown to me that stuttering depends as much on the mind as on the organism, and that nervous affections, abnormal innervation are under the influence of cerebral activity. It has not without good reason been asserted that a firm will can moderate organic vitality, and we have seen several remarkable instances of it. Individuals who had been treated with narcotics, electricity, and other remedies, and whose stuttering nevertheless remained a constant symptom of that nervous condition, lost with the stuttering all these symptoms whenever I succeeded to render the will dominant. The whole individual

becomes calmer and all his functions become, so to say, logical."

It is impossible to lay down any precise rules in regard to the psychical treatment of the stammerer or stutterer; for it is clear that it must be adapted, not merely to the intellectual and moral capacity, but also to the temperament of the patient. The sanguine, the phlegmatic, the choleric, and the nervous stutterer, require each the application of a different method. The great object, however, in all cases, is to impart to the patient mental tranquillity and self-control. When that is effected much has been gained, and *until* it is attained, physical and mechanical means prove but of small benefit.

In illustration of the power of the mind over the body with regard to stuttering, I may state the following fact from amongst many of a similar nature. One of my pupils, a talented clergyman, before coming to me, had occasion to deliver a sermon—a task which, under the circumstances—being afflicted with a severe impediment of speech—he would have been very glad to avoid. Perceiving at the beginning of his discourse, that the peculiarity of his enunciation caused an unseemly merriment among his congregation, his feelings were roused to such a pitch, that he inwardly vowed to give them no further

cause for it, and he fully succeeded; for he went on with his discourse to the end without once faltering. But the excitement proved too much for him: the concentration of mental energy was, as usual, followed by reaction, and he felt utterly prostrate for several days, and stuttered fearfully until he placed himself under my tuition. Since I acquainted him with the causes of his impediment, and after having, by practice, brought his rebellious organs under control, he felt not more surprised at the simplicity of the means by which he obtained this command, than at the circumstance, that with all his reading and talents he did not himself discover so obvious a remedy.

Stammerers and stutterers are frequently looked upon as a careless, petulant, and indolent class—a set of imbeciles—than which nothing can generally be more erroneous. The following extract from Dr. Klencke so fully corroborates the opinions I have for many years advanced, that I make no apology for quoting such sound and practical advice. I believe the author is the only man, besides myself, who has had sufficient experience with stammerers to be able to arrive at such a judicious opinion on this subject. He says, “The stutterer requires different treatment from common patients; he is both *bodily* and *men-*

tally affected ; a man whose mind, temperament, capacity, and character have taken the specific character of his infirmity, if treated like a common patient, would leave the institution uncured. The stammerer requires a *family life*, a *home*, where he feels himself surrounded by persons who look indulgently at his affliction, but at the same time encourage him by word and deed to exert his will to overcome his infirmity.

“ Every stammerer is embarrassed, timid, distrustful, he feels a desire to attach himself to somebody he trusts ; but he is also capricious, thoughtless, passionate, and without firmness. This infirmity depresses him, but in such moments when he would express some lively thought, he becomes spasmodically excited. In the bosom of a family, surrounded by the wife, the children, the relations, and friends of his instructor, both his mind and feelings are favourably influenced and restore his equanimity.

“ I have made the experience, that though without such an introduction of a stammerer into a (to him) perfectly strange family, the evil may apparently be cured ; yet that relapses frequently occur in such cases.

“ Stammerers, chiefly adults, have applied to me, who felt a disinclination to entering a strange family and submit to its regulations, and who preferred to

live in an hotel or private residence, and would only daily visit me to receive their lessons ; but as I had learned that this rarely led to any cure, I have generally, in the interest of the patients themselves, declined such offers, and I make the residence in my family an indispensable condition.

“ The nature of the stammerer *absolutely* requires this. Driven from society by his infirmity, there arises in the stammerer, according to his temperament, a cross, dreamy, distrustful disposition ; or, perhaps, a thoughtlessness, an inclination for secret indulgence, a flightiness and indecision, as if the weakness of the organs of speech were allied with weakness of character. The stammerer has always a feeling of degradation, of becoming an object of ridicule. I shall show in the sequel that stammering is less a *bodily* than a mental evil, and arises as much by a neglected education as by nervous or physiological disturbances of the organism. If now the pupil is received in a family of which his teacher is the head, and in which family all the arrangements are made subservient to his cure, he loses his fear of being ridiculed, his mind acquires confidence, and he gradually attains that mental condition which, in my experience, must always precede all treatment, and without which all vocal gymnastics remain useless.

“But it must not be believed that this mode of treatment is an *easy* task ; on the contrary, it offers great difficulties, and is attended by a host of disagreements, resulting from caprice, distrust, inconstancy, and ingratitude. Stutterers possess certain characteristic features, such as secretiveness, distrust, a *passive resistance* against anything inconvenient in the method, always ready to adopt that by which they can arrive at a cure without any self-exertion.

“To combat this characteristic feature is always the most difficult part of the commencement of the treatment. If we do not succeed in effecting this by our personal influence, or by that of our family, within the first six weeks, we may send him home again, for his time and money will be lost to no purpose. I have dismissed several such individuals, and after they have been in the hands of travelling medical or lay stutter-doctors some of them have returned, and having acquired the power of self-exertion, have been cured of their infirmity.

“After having imparted confidence to the stutterer, and accustomed him to voluntary self-exertion, the physical cure proceeds rapidly ; and, with the growing feeling of being liberated from his fetters, the stutterer entertains nothing but feelings of friendship and kindness towards his teacher and his family, which may last during life.”

The temper of many sufferers has been soured by continued annoyances ; and some exhibit signs of indolence which convey the impression of stupidity, but this is no more than would occur under the same circumstances to any other persons. Often have I found excellent qualities of head and heart thus obscured ; but the cause being removed, and sufficient time allowed for the sufferer to regain his bodily health and mental vigour, he, no longer restrained by his infirmity, not only frequently equals, but rises superior to his unfettered companions. We behold him now speaking with fluency and pleasure in society where formerly he could not utter a sentence. I may illustrate this by the following case :—

A young gentleman, the son of a dignitary of the Church of England, labouring under a severe impediment of speech, became a pupil of my late father. Being of a persevering character, he not only, in due time, conquered the impediment, but actually acquired such a command over his organs, that he, shortly after, carried off the prize as the best reader of his year, as scholar of Trinity College, Cambridge.

There was, therefore, in this case (by no means an unusual one) not only a blemish removed, but a beauty created where previously deformity existed.

This result, though scarcely expected, is natural enough; for a stammerer who has gone through a systematic course must, if perfectly cured, generally be a better reader and speaker than are usually met with, inasmuch as the very discipline, requisite to overcome impediments in speech, leads simultaneously to correct reading, and fluent and ready delivery.

It frequently happens that the cure of psellism brings out latent capabilities, which might have remained dormant had they not been roused by the removal of the cause which concealed them. It is no uncommon occurrence to find a fine voice, and many other qualifications for oratory, hidden under a distressing delivery. Under appropriate treatment, the enemy is not only vanquished, but his post advantageously occupied; weakness yields the place to strength, and strength establishes the foundation of excellence.

Dr. Eich has made similar remarks respecting his own treatment, with which I cordially coincide. "My pupils do not speak in broken off sentences. No! they read and narrate so fluently, and the educated among them with such an expression that they seem to have acquired rather the oratorical art than merely the art of speaking.

"The individual means applied are too multifarious to be here enumerated, and though I were to give a list of them they could scarcely be applied by the stammerer himself. Some must submit to exercises for two or three months, others succeed more rapidly, but in most, and especially with the less intelligent, it is requisite to improve their minds, to make them acquainted with themselves and other minds, and to establish a harmony between these; a mode of cure, which must be adapted to the psychical condition of each individual."

The ascertained cause of the impediment should be explained to the pupil; for few, if any, stammerers are aware of the reason why they have a difficulty of utterance. Vocalization and articulation are intuitively acquired in infancy; but the mode and the cause of their production is unknown even to many adults. Now it is not exactly requisite minutely to explain to the stammerer the individual and collective action of all the organs concerned. This would defeat our very purpose; for finding it so complicated a mechanism it would but increase his apprehension that he could ever obtain the mastery over it. But it is necessary to point out to the pupil, in the first place, the manner in which voice is produced, and articulation effected, and the ostensible reason why

he has a difficulty in speech. He must be made to concentrate his attention* on the *main* source of his impediment, whether the fault be in the action of the respiratory, vocal, or articulating apparatus. By these means the mind of the patient is acted upon, scepticism and mistrust are removed, confidence is established, and the subject is inspired with the hope that he may ultimately recover his fluency of speech.

That self-exertion is requisite for the cure of stammerers should be fully understood by all sufferers and their friends. More failures in practice and disappointment to the friends of pupils take place from a want of definite opinions as to the mental effort required to be cured than from any other cause. I make it my first duty to impress this on all persons who consult me for impediments in speech. Occasionally I have asked a youth of seventeen or eighteen years of age, "Are you anxious to get rid of your defect?" and the reply has been, "Oh no, I don't care about it; only the governor wants me to get cured, to enable me to go into the army!" My advice to such cases is, to wait until they do care;

* Unzer well says, "In proportion as the cerebral impressions, and the forces which excite them, namely, the natural sensations, and the spontaneous external conceptions are powerful, in the same proportion the sentient actions which they excite through the nerves are vigorous."

and I have never known that time not to arrive sooner or later. Let me, therefore, corroborate my own opinion and advice by that of so judicious an adviser as Dr. Klencke, who says—

“ The first home-sickness is easily overcome; but now comes the more difficult task to direct and to master the character of the stutterer which gradually manifests itself. *All* stutterers (though I have never neglected to point out to them and their relations the absolute necessity of self-exertion, which they solemnly promise) enter with the idea that they would only passively and mechanically have to follow the rules given, but that they themselves would not be charged with the exertion of attention or mental activity. They abandon themselves therefore to a comfortable laxity as they were indulged in at home, and expect to be cured of their infirmity solely by the art of the physician or teacher without any *effort of their own*, *excepting that of mechanical obedience*. Nothing, however, is so much against a rational cure of stuttering than this mere mechanical obedience, and when the mind passively receives the didactic part of the treatment. If this mental inactivity cannot be conquered, all trouble will be vain, and it might be better to dismiss the pupil, and to receive him again after some years, when he may have acquired more mental strength.

“ The call upon the pupil for self-exertion gives again rise to home-sickness, and naturally so. They are then awakened from their dream ; they are undeceived as to their expectation of being cured by the trouble of *another* person ; they are called upon to work *themselves* ; they are *forced* to speak, and to conquer their *disinclination* to speak ; they are kept at exercises and taught to think. This runs counter to their former habits ; for in the parental home they were treated with great indulgence as regards their laziness and thoughtlessness.

“ How different must, to such a boy or girl, every thing appear in my institution, where mind and body are exercised methodically, where they are required to work for certain hours ; are called upon to watch themselves ; are neither allowed to stutter nor to speak by signs. They consider this severity excessive, they again long for home, and now there arises that phase of discontent which terminates in a passive resistance, and they write to their parents letters full of lamentation.

“ I know this transition period ; it is natural, and I never neglect to inform parents at the outset that such a period is sure to arrive, in order to prepare parents for the event, so that they might treat these letters accordingly. I was led to this on having

found that unreasonable parents yielded to these lamentations and withdrew their children from my institution.

“ When the pupils have overcome this transition period, and have perceived that I was right in my strictness, their confidence may be said to be acquired, and the treatment proceeds.

“ The case was different as regards adults, with whom we may proceed more rapidly, as we can more depend upon their intelligence and self-exertion. But all adults whom I received as boarders manifested one peculiar feature, namely, a more or less concealed *distrust* in my method.* They watched closely the other boarders, they minutely inquired into the details of my method and its results, which was rather disagreeable to me at first, but to which I now have become indifferent. Among the numerous adults whom I received, there was not *one who had not*

* This distrust is no doubt pretty general with all grown up cases of stuttering. It is, indeed, a symptom of the defect, and but too often they had just cause for their want of confidence. I have always considered this want of confidence to be a part of the defect, as is the idea that most pupils have that there is something peculiar in their particular case. In the generality of cases I find that this distrust is removed when the reason of the pupil is addressed, and he begins to make an effort to test the value of the advice given him. How soon a pupil acquires confidence, will greatly depend on the instruction as well as the mode of instruction. The italics in the above extract are in the original.

gathered bitter experience, and who had not been deceived by travelling stutter-doctors and medical and lay bunglers. One had been treated by correspondence, paying a ducat for every letter ; another had paid to a physician two dollars for a bottle of liquid, and a frederic for consultation ; another had gone to a town where a teacher, dentist, actor, etc. had opened such a school ; a fourth exhibited to me scars on his tongue ; a fifth, again, showed me a machine which he had to carry in his mouth for a year ; then again, there was a sixth, who exhibited a bundle of prescriptions from known and unknown physicians, who considered the cause of stuttering to lie in some constitutional or pathological disposition of the organism. A seventh had fallen into the hands of teachers of deaf-mutes ; an eighth required of me to cure him as if by miracle. Many others again came to me with prescriptions from their physicians, which I could not approve of.

“ Deterred by such experience, the stutterer despairs of a cure. After the distrust of the adult stutterer is removed, there occurs a second circumstance, which may impede a cure. The adult stutterer has, like all other stutterers, *no perseverance*. He grasps the method when he begins to feel the increasing freedom of his intellectual and organic life, with zeal and enthusiasm ; but when he is called upon to pro-

ceed step by step, to exercise methodically, and to remain, though greatly improved, subject to the will of his physician, he *overestimates* his power; he thinks to stand on firm ground, believing that he can proceed by himself, and requires no further superintendence. They then usually declare their intention of leaving the establishment against my advice. Such cases have occurred repeatedly, but with one exception, they *all* returned after three or six months, in considerably a worse condition than when they left. They had again to recommence the interrupted treatment.

“In order to obviate such *interruptions for the future*, so as not to lose the fruit of my labours, I made it a condition, *that every pupil must engage to remain in my establishment for twenty weeks*, and that every pupil who does not perfectly subject himself to my method is liable to be dismissed at the end of four weeks.

“Here is the opportunity of saying a word as to the time required for a cure. Some wonder that I consider twenty weeks as the shortest period, and are of opinion that four or six weeks might suffice. Even physicians and rational people think so. This shows a perfect ignorance of the nature of stuttering, Nobody wonders or complains of the length of time

the orthopaedic physician requires (may be one or two years, or more) to cure crooked bones caused by muscular weakness. It is also known that many such subjects are sent back uncured. When now one tells me that he can permanently cure stuttering, which requires a more difficult orthopædy and more active gymnastics than a wry shoulder, in four or six weeks, I tell him to his face that he had no stutterer under his care, or that I do not believe him. I equally consider as untrue or self-deceptions the assertions that stutterers have been cured by operations, medicaments, or machines. Such assertions deserve as much faith as those of a singing master who pretended to make a prima donna of every girl by means of some machine or embrocation. All such assertions are Munchausen stories."

I have little to add to the above extract, which is on the whole most judicious. I differ from Dr. Klencke, however, when he asserts that no cases of stuttering can be cured in a month or six weeks. I grant it is rare; but I have had pupils who have had such power of mind, self-control, and determination, that they would make more progress in a week than the majority of cases do in a month. I would not, however, assert that any case can be so successfully cured by a residence of one month, unless time and

attention is given to my advice after leaving. The only exceptions to this general rule are those slight forms of stuttering, which can generally be cured in a few weeks, if the pupil possess determination and power of will. My own experience has been, that the time required for cure corresponds more with the mental calibre of the pupil than with anything else. The mere physical severity of different cases is of little consequence in comparison with the difference in mental power. On explaining this to applicants, and informing them of the probable length of time required for a radical cure, I have often been reminded that I have cured some friend in a month or six weeks. And here I would remark on the absurdity of reasoning from one single case. Impediments in speech differ so much, both in kind and degree, that all inference from a few successful cases is only *prima facie* evidence, and is wholly valueless as to the success which would attend the treatment of other cases; and it is for this reason that I have not reprinted any private testimonials to the success of my treatment.

Management of Stammering and Stuttering Children.—During the reign of terror in our educational establishments, when learning and morality were beaten into the reluctant minds of the rising genera-

tion, it was but natural that the application of the rod was considered an effective means to cure stammering. I am therefore not surprised to find that even the great Joseph Frank recommends, in his *Practice of Medicine*, cuffs and kicks as proper remedies in certain cases of impediments. But though the flogging system has in recent times lost caste, the treatment of stammering and stuttering children is still very irrational.

Some severity may be advisable in such cases when the infirmity is presumed to be mimicked either for fun, or for deception. It is, however, not so easy for persons unacquainted with the various causes and symptoms to detect the difference between real and pretended stammering, and many children really afflicted have been treated with great injustice on that account. A susceptible, timid child, constantly in awe of an ignorant parent, or a brutal master, may be made to stutter by cruel treatment. I cannot, therefore, but fully concur in the following forcible remarks, merely adding that the fundamental principle of all rational education—*suaviter in modo, fortiter in re*—is a *fortiori* applicable to the cure of stammering.

“And here I say boldly, that the stupidity and cruelty with which stammering children are too often treated,

is enough to rouse indignation. They are told, 'You can help it if you like!' As if they knew how to help it. They are asked, 'Why cannot you speak like other people?' As if it were not torture enough to see other people speaking as they cannot; to see the rest of the world walking smoothly along a road which they cannot find, and are laughed at for not finding; while those who walk proudly along cannot tell them how they keep on it. They are even told, 'You do it on purpose!' As if they were not writhing with shame every time they open their mouths. All this begets in the stammerer a habit of secrecy, of feeling himself cut off from his kindred; of brooding over his thoughts, of fancying himself under a mysterious curse, which sometimes (as I have known it to do) tempts him to actual suicide; sometimes (as I have known it do) seems the possession of a demon. If it proceeded from an organic defect, a deformity, he would know that he could not dance. If he was blind he would not expect to see. But when he knows there is no deformity, that his organs are just as perfect as other people's, the very seeming causelessness of the malady makes it utterly intolerable."*

Whether it be from inattention, or from inability

* *Irrationale of Speech.*

of distinguishing between the difficulty of enunciating certain syllables and words in early infancy, and actual psellism, it is certain that the first inclination to stammer is little noticed, and that it is only about the period of the second dentition that the attention of the parents is fairly roused. The hope which many parents entertain that the affection may spontaneously decline, is, unless it proceeds from a transitory disorder, rarely realised. The defect, on the contrary, commonly increases with approaching puberty, and sometimes becomes then developed in its worst form.

Parents, therefore, cannot too often be reminded, that the proper time for seeking the aid of an experienced practitioner is the period when the infirmity *first* manifests itself; the evil may then be more easily removed; while the cure becomes more difficult and tedious, when indistinct articulation has become habitual.

One of the causes of defective articulation, which has scarcely been noticed, is the foolish manner in which children are talked to by ignorant nurses and fond mothers; to which must be added the careless and faulty manner in which they are taught to speak and read. It is scarcely necessary to remark that parents cannot be too careful

to select nurses and teachers free from any defect of speech.

The celebrated Dr. Priestley, who laboured under an impediment of speech, was conscientious enough to retire from his profession of a teacher, as he well knew how contagious, if we may use the term, stammering is. In Priestley's time the nature of the infirmity was but little understood ; and he abandoned all hope of being relieved of his impediment.

I have touched on the useless and frequently injurious effect of surgical operations for the cure of stammering ; but here will be a proper place for mentioning the baneful effect of the more simple operation of cutting the *frænum linguae*, which is often unnecessarily practised on children. Experience has long taught me that to this cause may be ascribed some of the very worst cases of stammering that have ever came under my notice. I have not failed to utter my protest against this seemingly simple operation on every available occasion. The result has been to direct the attention of some medical men to this baneful practice. Fortunately conservative surgery is now the fashion, and a more ready ear is given to these protests. I am glad to know that I am supported in my views by a medical practitioner in America, who appears to have arrived at the same

conclusion as myself. The following is both instructive and interesting :* “ A little girl, aged four, was brought to the clinic by the mother, who said she did not speak distinctly, and she thought she was tongue-tied. On examination it was found she could project the tongue beyond her teeth half an inch, a sufficient evidence that the condition of the *frenum linguae* did not interfere with her articulation. Raising her tongue the frenum was found normal in its dimensions.” Dr. Hamilton then made the following remarks: “ There are two periods at which children will be brought to you to have the *frenum linguae* cut. Soon after birth, when it is found that the child does not nurse well or at all; and from the third to the seventh year, when a delay occurs in the acquisition of language. But you must remember, that a child may be unable or refuse to nurse, because it is feeble, has a sore mouth,—it may be owing to the mother’s milk being distasteful, or to its not flowing readily, or the nipple may be too small and contracted. Indeed, it is my opinion, that some one of these causes will explain most of these cases. I have cut the frenum occasionally to gratify the parents, but I am not aware that it ever did any good. I do

* “ Delay in Acquiring the Use of Language,” from the *American Medical Times*, 1860. Dr. F. Hamilton’s Clinic.

not speak of adhesions of the tongue to the floor of the mouth, but only of malformations of the fillet. In the second class of cases also, I am sceptical in relation to the effect of this frenum in preventing distinct articulation, or even in producing lisping or stammering at a later period of life; but I wish especially to speak of its supposed influence in examples of delay in the acquisition of language or of indistinct and imperfect articulation. The causes of this delay are, according to my observation, deafness, partial or complete, in consequence of which instruction in sounds cannot be communicated to the child, or idiocy, partial or complete. Sometimes there is only a slight impairment of the intellectual function, and such a child, if proper pains are taken, becomes eventually as intelligent as other children. We may then relieve the anxiety of parents by assuring them that it is not likely to be permanent. I have heard it said of a distinguished physician of my acquaintance, that he did not speak a word until he was seven years of age."

Dr. Hamilton is not the first who has performed this operation to "gratify the parents;" but it would be well for medical men to bear in mind that the gratification is only temporary, and that on the patient arriving at mature age he finds out who has

committed this abnormality on him ; and yet receives no gratitude in return for his desire to gratify the parents. The fact is, that many medical men have so acted, believing that the operation was both simple and harmless, but such is not the case. Parents are themselves greatly to blame in urging this old woman's fancy on their medical advisers. It would be well for the future if all parents, when their medical men advise this operation, to seek for further advice before they allow their children to be mutilated. There are medical men, however, who do not care simply to gratify the parents, but take the whole responsibility on themselves. To give an instance. A youth of thirteen was some months since brought to me by his widowed mother, who said she had been sent by the celebrated Mr. ——. On examining the case, I asked if the child had not been tongue-tied as a baby, and whether it had been cut ? To my surprise, I was told that the operation had been performed about a month since by the same gentleman who had recommended the case to be sent to me. Now this operation (if such it may be called) was done without the mother's knowledge or sanction. The case was taken to him for advice respecting the stammering, as his mother thought some tonics would strengthen his nervous system. The youth was ques-

tioned, his mouth examined, and in a minute a pair of scissors had cut his *frænum linguae*. The mother then asked if that would cure her son? "Oh no, it will not cure him, it may be of some service, and it will not do any harm; you cannot do better than take him to Dr. Hunt." Up to the time of the operation the defect had been comparatively slight, but then the stammering came on much worse, and at the time he was brought to me he stammered very badly. I need only say that when these operations have been performed, the cure is ten times more difficult and uncertain.

This pupil is highly connected, having three uncles in parliament and one a bishop. The mother wishes her son to enter the church; but though he may become an effective clergyman, he will, I fear, long have to regret the operation performed on him.

I have had many such cases; one in particular, a youth of seventeen, had just gone into the army, but as he had a slight hesitation his friends consulted their ordinary medical man, and he at once advised the division of the *frænum linguae*. Within a few weeks his defect increased very much, and it got so bad, at last, that he had to resign his commission, as the commander would not allow him to have his com-

pany. Some few years afterwards, being much liked, he was made pay-master to the regiment. He was very clever and sensitive, but his affection so depressed his spirits, that his health and mind were gradually affected. He placed himself under my treatment for the short time in which he could obtain leave of absence from his regiment, and nearly conquered his difficulty, greatly improved his health and spirits, and returned to his work full of confidence and hope.' He was to have returned to me again, but was sent out of England ; his melancholy and irritability became worse, and he gradually sank under the combined influence of melancholy, irritation and disappointment, and died in less than two years afterwards. This man had naturally a sensitive, ambitious nature, and was very well connected, most of his friends occupying a prominent position in society. Before he came to me, he knew who had been the chief cause of his misery, and often said that if he met the medical man who performed this operation that he would kill him. "It would," he said, "be but a slight return for what I have suffered."

Parents cannot be too careful in watching the development of the organs of voice of their children. All defects but those of utterance receive immediate attendance, and why should the "human voice divine"

alone go uncared for? If parents only knew how many a sad life has been spent from this early neglect, they would take warning in time. Many of the defects of children's articulation are very slight, but being neglected they gradually develope into serious impediments. Some children, with an active brain, begin with speaking so rapidly that their organs will not work at the same rate. Some begin to speak before they have any clear idea of what they are going to say. It is the business of education to counteract this youthful tendency. It can be done: but not until parents really care more for their children's health than they do for their success in life. It is useless for parents to deny that they care more for the worldly prospects of their children than they do for their health, while their practice gives such a lie direct to their words. Dr. Eich, after touching on the great variety of defects in the speech of young children, says, "All the defects may degenerate into stuttering, especially if they commence in childhood. This degeneracy depends on the mental power of the individual. Nothing is more disagreeable than to be obliged to have continued intercourse with a person whose enunciation so much affects the ear." The proverb "that a stitch in time may save nine" is as true in this case as any other.

It can, however, hardly be credited by those who have not had experience in the matter, how great is the neglect of all physiological laws with the children of the highest classes. Education now seems to be a process to cram the heads of children with dry facts; facts that are not only useless but which, in the majority of instances, are not of the least service in after life, and really hurtful as a process for the development of the mind. While in the palmy days of Greece and Rome the best and wisest of men were those to whom the education of youths was intrusted, it is now given in this country into the hands of such men as will accept a salary and social comforts, far inferior to that which the parent allows to his butler. I do not speak from mere theory on this subject, because I have had occasion to see much of the system of education in vogue amongst the upper classes, and have been amazed at the frightful amount of "grind" which it is the fashion for this class to make their tutors (too frequently seekers for preferment) give their children. This, however, is everybody's business, and consequently not mine. My duty is the cure of defects in speech. But how can stammering be cured if time and attention cannot be given? Even if patients cannot be induced to give up a little time for the attainment

of so desirable an end, we still require care after the treatment, and an education conducted with *some little* show of reason. It must be remembered that the irritability of the nervous system which originally could produce stuttering, still exists, and the object of all rational education should be to allay this irritability. I have talked and written to parents for hours on this subject: but I am told that children are backward, and that they must be worked up to take a good place at public school. They are backward forsooth because, until they were cured, they stuttered so badly that they were unable to read. After treatment they return home, and have double pressure put on to make up for lost time: notwithstanding all remonstrances. Parents too frequently will not believe that children require very careful treatment for a considerable time, and the especial avoidance of all strain on the nervous system. But although parents and guardians are unwilling to learn from the dictates of reason, they not unfrequently learn from experience. A boy is placed under treatment, returns home speaking well, is put to work, neglects all his vocal exercises, and disregards all physical systematic training, and in a short time his impediment returns; and then, forsooth, it is not the strain on the nervous system, etc., which has pro-

duced this: but it was the fault of the system by which he was cured. He has got a relapse! The relief is not permanent! As well might all men say who go out and take cold, that it is a return of the cold which they had some three or six months before. As with a cold so with a stammer, the oftener and longer it has existed, the more liable are persons to it. As long as parents will disregard all warning as to the general management of youths after leaving, so long must they expect sometimes for their children to relapse.

All children that have stammered and been under treatment, require some extra care and exercise of the vocal apparatus. They often cannot learn to read until they are cured, and if they do it is most imperfectly, with little or no modulation or flexibility of the voice. They have spoken little because that has been a difficulty, and therefore the whole mechanism requires a careful and systematic training. This requires both time and attention, but one would fancy that it would be gladly given by those parents who know what a great working power the "gift of the gab" is to raise oneself in the world. The value of a good voice is well known to all: but it is not so generally known that a good voice is the result of

much attention and labour. To slightly alter the words of Pope,—

“Free ease in ‘speaking’ comes from art, not chance,
As those move easiest who have learned to dance.”

Nothing, then, can be more absurd than for parents to expect an effect without an adequate cause. Defective speech can be cured, and it may be re-produced, like any other affection of the mind or body; and the present mode of cramming the brain (falsely called education, which means to bring out, not stuff in), is the very process to produce stuttering in some cases, and to reproduce it in others.

Elocution.—I will not here enter upon any discussion as to the value of elocution as a branch of elementary education. I have done so elsewhere;* but this much I may observe, that there have been, and there are elocutionists under whose instructions great advantages may be acquired. But unfortunately such men are sometimes called in to correct inveterate errors, instead of instituting elementary principles at the outset, before the contraction of bad habits. Elocution, as now understood, seems only a method of varnishing the voice, and of teaching the imitation of some particular style or rhythrical mode of speaking and reading. No wonder that the study of elocu-

* See *Philosophy of Voice and Speech*.

tion has fallen into disrepute. Properly to develop the vocal and articulating organs, we must be guided by some fixed principles, with which the majority of those who teach children to read are totally unacquainted. The same may be generally said of many who style themselves elocutionists.

Relapses.—The French and German commissions, which examined the patients presented before them after having undergone the treatment employed by their respective tutors, pronounced most of them cured of their infirmity. Yet it is certain that many of these, after a shorter or longer period of time, relapsed into their old habit. The questions, therefore, arose whether a radical cure be at all possible, or whether the systems employed were in fault. Now, I will not attempt to deny that similar cases, though not to any extent, have occurred in my own practice. But when it is considered that the old habit, which perhaps has existed for years, is still strong, and can, especially in inveterate cases, be only controlled by constant attention to the rules for harmonising the motions of the articulative organs with the vocal and respiratory functions, it is wonderful that the relapses are not more frequent.

The few of my pupils that have experienced a relapse, have candidly imputed it to their own care-

lessness, and not to the system ; for what was possible once must be possible again. In some cases circumstances prevented the pupil from going through the whole requisite discipline. Others, again, are too sanguine, and consider themselves perfectly cured on having acquired a certain fluency of utterance, while in some, the constant fear of lapsing is the cause of its actual occurrence.

Bansmann has also remarked that the treatment of cases of stammering "will not always lead to a happy result, unless experience is combined with perseverance. In curing a stammerer, there constantly remains a disposition to relapse into the vicious habit." This is no doubt true, especially where the system of cure is not strictly founded on correct physiological principles. I will now quote what Dr. Klencke has recently said on this point.

"Common cases of stuttering," he says, "I have for the last fifteen years generally cured within twenty to twenty-five weeks. More obstinate cases, complications with organic defects, scrofula, or mental defects, such as great indolence, flightiness, caprice, etc., required a longer time. Some stutterers I had to *dismiss*, as they exhibited a *bad* will or no will at all, and had come to me with the false idea that nothing was required of them; that they

might remain *passive*, and recover the fee by well eating and drinking ; especially as *eating*, amounting to *voracity*, is a regular *concomitant* of lazy stutterers. They stutter more violently during the hours of digestion, they have no desire to exert the will, and shun especially respiratory exercises. The diet must, with such individuals, be regulated.

“ Another circumstance I must mention before I conclude. When the stutterer returns home cured, the rational adult keeps in mind that he must still be guarded in his speech, and must exert his will in order to escape the danger of a *relapse*; he must forget stuttering by the *speech rules*, which have now become habitual to him.

“ It is different when *children* are sent home. The parents or relations frequently think, when their boy or daughter is *finished* and now gladdens them by clear and distinct enunciation, that no further attention is requisite as regards speech ; and the consequence is that the children, cured with so much trouble, re-acquire false tones, rapid articulation, thoughtless speaking, bad habits, and by degrees, sometimes very rapidly, stuttering re-appears in its old form or with *new* characters. Such cases I have frequently met with, and I was obliged to retake the children. Whenever I found out that I had to do

with indulgent parents, who spoiled their children or had not time to attend to them, I always took care to recommend a tutor, to give to the children, after I had dismissed them, some daily lesson according to my instruction. If this was continued for a considerable time, say a year in some cases, a relapse rarely occurred.

“I had three cases in which the stutter-evil recurred after two years, either from a nervous fever or from fright. In the first case the stuttering disappeared with the nervous affection ; but in two cases I had to receive them again in my establishment. The evil manifested itself by a nervous debility of respiration, but yielded in a few weeks, after strengthening the respiration, and reducing the mode of speech to strict rules.”

Mr. Malebouche says that his experience was, “that those cures which are the most quickly effected are the least durable.” I have certainly found a tendency to the same result ; but by due caution, such a rule has been by no means general.

I fully agree with Mr. Malebouche, however, when he says, “that it is important to concentrate the mind exclusively upon the object to be obtained by the treatment. Children, and that class of men of the world who are accustomed to descant upon and dis-

cuss everything without ever concluding upon anything, are incapable of this concentration of the attention, and for that reason are difficult to cure."

Dr. Arnott makes a very true remark when he says that "there are some, as stutterers, who, owing to a naturally weak or irregular association, or to some accident in early life which has strongly affected the nervous system, retain defects which no ordinary teaching can correct."

To effect a perfect cure, it is absolutely necessary to appeal to the reason, and arouse the will to a vigilant control over all the voluntary nerves and muscles. When pupils are too indolent or too careless to exercise this control, the cure becomes very difficult and uncertain, and even after the cure is effected attention must be paid to the management of the vocal organs for some considerable time.

Mr. Bishop has well observed, that "In this class of cases, however, as well as in many others, it is not uncommon to find persons too indifferent about the results to trouble themselves with the exercise of rules, after they had made themselves masters of them. It must always be borne in mind, that we have not to deal with automatic functions, which, once set in healthy action, continue like the movements of a watch; but with mechanism, the move-

ments of which are placed under the control of the voluntary system, and subject to the irregular impulses of the intellectual processes."

Otto* makes the following very judicious remarks respecting the time requisite for the cure of stuttering. He says, "However deeply rooted the evil may be, it will generally yield to the efforts of a teacher well experienced, provided there are not organic defects beyond the reach of the instructor, and where the pupil is neither deficient in will nor in intellect. The intensity of the affection must determine the duration of the treatment, and as this has different gradations, and much depends on the efforts of the pupil, and on the number of the lessons and exercises, nothing certain can be said as to the time requisite for a complete cure. This much may be generally asserted, that there are cases which may be cured in a few hours, whilst there are others which will require many weeks or months. In children and very young persons we cannot expect to effect much by mere rules; constant and continued practice alone can effect a radical cure."

One principal reason, however, of failure, has justly been observed by Dr. Warren, an eminent physician of the United States, to be that "teachers require too

* *Loc. cit.*

little time, and consequently many of the cures are not permanent. A habit that has been confirmed by years cannot be eradicated in a very short time. This remark as to the length of time required for the cure of children applies in some cases still more forcibly to the case of adults. The more confirmed the habit, the more complicated it is, and the longer the time requisite for its eradication. In regard to the discipline of the organs, an experienced instructor is not only of the utmost importance, but of the greatest necessity." The advice which Dr. Warren gives to parents is so judicious and comes from so good an authority, that I cannot refrain from quoting it.

" Seek out a person who has experience in the treatment of impediments of speech. Place the stutterer under his care, and if he is benefited, do not remove him, and think to perfect the cure yourself. Three months is a very short time for him to remain under the superintendence of an instructor; six months is better, and where it is practicable, he should remain a year. If this interferes with other studies, it is of no consequence; he will derive benefit enough to compensate for the loss. The age I should fix upon for the trial should be from eight to twelve. At this period the loss of a year's study may be a gain. If

he meets there others who are affected as he is, it is all the better; he will no longer look upon his case as a peculiar one; and if he sees others whose impediments are worse than his, it will give him additional courage."

This is very true, for very sensitive pupils are apt to doubt themselves, and fail in consequence of want of confidence. But when they observe the successful effects of the system in which they are to be instructed, the conviction is forced upon their minds that they need only follow the same course to reap the same benefit.

Dr. Warren continues:—"Whatever method may be employed for the relief of this affection, no permanent advantage will be gained, in the majority of cases, unless resolutely persevered in for one or two years."*

That there are not a few stammerers who require for a long period the constant and vigilant care of an efficient instructor is undeniable. Such intractable cases form, however, in the majority of cases, the minority; while, provided the proper means are employed, permanent relief may, in the majority of these affections, be gained within a comparatively short time.

Dr. Klencke's experience on this point is also

* Dr. Warren, *On Moral Treatment of Stammering.*

worth quoting, as the observations are made on one hundred and forty-nine cases, extending over a period of fifteen years. He says : " The average time requisite for the cure of the affection in most of the pupils was from twenty to twenty-five weeks. Seven were dismissed cured after a residence of twelve weeks, their evil having been respiratory stuttering, more easily to be cured though violent in its manifestation. One of them, a man aged thirty-six, possessed such firmness of will, that he powerfully assisted psychically to conquer his nervous stuttering. One, an Austrian, aged twenty-one, I was obliged to send away on account of manifest cretinism. One, a Tyrolese, aged twenty-one, I was obliged to dismiss after a few weeks, on account of his obstinacy and opposition. Eight were sent away for a short time, as they had been most shamefully neglected at home. Two required, in order to be radically cured, from forty-one to fifty-two weeks. One of these suffered from spinal irritation after a concussion ; the second had a liver complaint."

Again he says, " By the removal of the cause, we only remove the obstruction to free speech ; there still is wanting the capacity of the free use of speech, just as a man who had been prevented from learning an art, must, after having obtained the means, learn the

art. Thus a language must be learned after the obstructions have been removed. This cannot be effected in four or six weeks, any more than one can learn to speak English or French in that time; and, in point of fact, the learning to speak by a stutterer scarcely differs from the learning a foreign language, as I shall show in the sequel. Twenty weeks is the shortest possible period in which, with the assistance of the zeal and good will of the stutterer himself, we may cure him so far that he may be enabled to proceed and perfect himself; whilst such stutterers who persevere in their laxity require a much longer period.

“When I opened my establishment, my first patient was a boy twelve years of age, of delicate constitution, who was to remain four weeks, as his school vacation did not admit of a longer stay. I promised nothing, and merely tried what could be done. The boy had overcome his anxiety in speech; his respiratory organs had become more developed and more obedient to his will, but he had no certain control, and no great power in the use of his organs. Four years afterwards he returned to my establishment to pass through a regular course. Many believe that, as soon as the word becomes free and un-

fettered, they can either watch over themselves, or continue under a teacher, preacher, or the superintendence of parents, and leave the establishment before the proper time. I have invariably seen them return in a worse condition, despite their assertion that they have daily continued their exercises under supervision of some teacher.

“ This may appear singular, but is quite natural and easily understood by him who knows anything of the nature of stuttering and stutterers. As I shall show subsequently, there is a great variety of stuttering, each of which must be treated individually according to its character and the personal disposition and habits of the patient. The form of the subsequent exercises must also be peculiar. I have often tried to give to such persons, who have offered to superintend the exercises of stutterers who left my establishment *before* the proper time, written directions, a scheme of rules to which their attention was to be chiefly directed ; but it has rarely succeeded, and when I had occasion to see the stutterer again, and to point out the chief faults, the superintendent always exclaimed, “ Ah ! that point has escaped me.” A singer who, having been schooled by a good teacher, leaves him for another music master, or,

perhaps, an amateur, will never reach perfection, and even the impressions of his first school may become effaced. And to a stutterer fluent speech is as much an object as a flexible voice is to the singer. The teacher who first instructed him observes every deviation which escapes the stranger.

“ Such experience has induced me to ask the relations not to fix upon a definite time, nor to undertake the necessary *after-exercises*, but to rest satisfied if they receive their wards returned as *cured*. Many intelligent parents have therefore entirely confided to me the education of their children, and consented only to send them to a public school after a perfect cure.”

It has been surmised by some parents, that the bringing of several stutterers together under one roof, must have an injurious effect on those who only have slight defects. But the reverse of this is the case. Indeed, it is absolutely necessary in order to effect a cure in some cases, that the pupils should be placed where they can see other cases. In the first place, it is very difficult for a stutterer to fully understand the cause of his own defect. As I have elsewhere observed, the continual misuse of his organs produces an altered condition of his nerves, and the

real state or position of the various organs is not conveyed to the mind. For these subjects it is absolutely essential that they should see and examine other cases, and then all doubt and difficulty will disappear. Nothing, indeed, is more beneficial for slight stammerers, than to be with others more afflicted ; for they see to what stuttering may arrive if they neglect their own case ; they are also continually reminded, by hearing others hesitate, that it is necessary for them to exercise that care and self-will by which alone stammering can be cured. Besides this, it is an utter impossibility and contrary to all laws of physiology, that one type or species of stammering or stuttering can be converted into another. There are laws for the development of the different species of defective speech as for everything else. These laws, although obscure and complicated, are still as permanent as the most simple law which exists in nature. Based, as my own practice is, on laws of physiology and psychology, I am bound to confess that nothing so much aids me in making my pupils cure themselves, as showing them the real cause of stammering in other persons.

Concluding Remarks.—As the subjects are frequently young persons with irritable nerves, or

extremely shy and bashful, it is, in most cases, requisite that they should, for a given time, be withdrawn from certain home influences—too often the exciting causes of the various forms of impediment in speech.

When defective articulation is the result or the concomitant of debility, whether congenital or acquired, a permanent cure can in such cases be only effected by placing the pupil under such favourable circumstances, that whilst the organs concerned undergo the requisite training, their healthy action may be restored and sustained by the invigoration of the whole frame.

The number of apparently intractable cases, which yielded to treatment during my annual temporary sojourn on the sea coast, has convinced me of the great value of a country and marine residence as an adjuvant in many cases, depending upon affections of the vocal, respiratory, or nervous apparatus. In order, therefore, fully to carry out my system, I have formed a permanent establishment* for the treatment of all sorts of defective articulation, which enables me to afford residential accommodation to a limited number of pupils, to whom I endeavour to give

* Ore House, near Hastings.

the liberty of private life and the enjoyment of a home.

The advantages offered by the locality selected, considered one of the most salubrious spots in Sussex, are sufficiently obvious. The house commands extensive land and sea views; the air is pure and bracing, and the environs offer all requisites for health and recreation.

Physical training, generally so much neglected, receives due attention, and all means are resorted to for producing bodily vigour. The cultivation of the intellect and the inculcation of moral habits is not less carefully attended to.

It is not alone the stammerer who feels a difficulty in making public addresses. If then there is so great an amount of fear in those who never stammer or have any defect or weakness in their vocal organ, and yet occasionally break down in their speaking, we need not wonder that those who have a great weakness and continual misuse of the organs of voice should find that, in any great strain of their vocal organs, they entirely fail to speak properly. It requires much care on the part of the instructor, and determination on the part of the pupil, to gain the confidence necessary for public speaking. But the organs of the stammerer must be first strength-

ened before he attempts too much. It forms, therefore, a prominent feature in the plan of instruction to afford to the pupils constant opportunities to read, debate, and speak on various subjects before others, the frequent practice of which being absolutely requisite to overcome the natural diffidence, and give a feeling of confidence and self-reliance in their own powers.



APPENDIX A.

ABRIDGED NOTICE OF THE LIFE OF THE LATE THOMAS HUNT.

THE late Thomas Hunt was born in Dorsetshire, in 1802. His progenitors and family were connected with the Church of England, and he was educated at Winchester, and Trinity College, Cambridge, with a view to a similar provision in holy orders.

While at Cambridge, Mr. Hunt's attention was, by the affliction of a fellow-student, forcibly drawn to the investigation of the causes whch produce stammering—a disorder then held to be incurable. Having, by various successfully treated cases, satisfied himself that he had discovered a rational system for the cure of this infirmity, he left college with the determination of devoting himself to that pursuit, which soon became the engrossing business of his life.

An extended provincial tour, undertaken to enlarge his experience, only confirmed his opinion as to the real nature of the disorder, and the most appropriate remedies for its removal.

One of the earliest proofs of his provincial success is vouched for by the late Sir John Forbes.

“Mr. Hunt was kind enough to give a lesson in my presence to Thomas Miles (a patient in the Chichester Infirmary), a poor man who has been affected with stammering, in a very high degree, from his infancy. And from the unreserved exposition of his principles on that occasion, as well as from the remarkable improvement (amounting almost to a complete cure) produced by this single lesson, I am of opinion that Mr. Hunt’s method will be successful in nearly every case of stammering not depending on any organic defect, provided the requisite degree of attention is paid by the pupil.”

JOHN FORBES, M.D.

“Chichester, April 12, 1828.”

Thus fortified by the happy results of his labours in all parts of the country, Mr. Hunt finally resolved to settle in the metropolis, where at first he experienced, to the full, all the difficulties which usually attend the establishment of a new theory. In spite of all obstacles, however, Mr. Hunt’s system gradually rose in public estimation, and the evidence of its merits became too convincing to be withheld. The greatest surgeon of the day, the late Mr. Robert Liston, stepped before the public, and not only raised his voice against any further mutilations, but evinced his admiration of the simplicity and efficacy of Mr. Hunt’s system, by recommending to medical and

other students to avail themselves of Mr. Hunt's tuition. Those only who know how scrupulously chary that eminent surgeon was to give the sanction of his name to aught, either professional or general, which he could not conscientiously approve, can estimate the paramount importance of such aid.

"I have, with much pleasure, witnessed Mr. Hunt's process for the removal of stammering. It is founded on correct physiological principles, is simple, efficacious, and unattended by pain or inconvenience. Several young persons have, in my presence, been brought to him for the first time; some of them could not utter a sentence, however short, without hesitation and frightful contortion of the features. In less than half an hour, by following Mr. Hunt's instructions, they have been able to speak and to read continuously, long passages without difficulty. Some of these individuals had previously been subjected to painful and unwarrantable incisions, and had been left with their palates horribly mutilated, hesitating in their speech, and stuttering as before.

"ROBERT LISTON.

"5, Clifford Street, March 1, 1842."

About this time it curiously happened that the attempt of Francis, when he shot at her Majesty, was witnessed by one Pearson, who had he been able to give the alarm, the danger might have been averted.

The *Times*, of June 25, 1842, remarks, "It will be recollected that a lad, named Pearson, one of the

persons who witnessed the treasonable attempt upon the Queen's life on the Sunday afternoon, was afflicted with so inveterate a habit of stammering as to be unable even to give an alarm. He has, we are informed, by means of a new process of cure, obtained the power of perfect articulation; the hesitation, which before rendered him scarcely intelligible, even when not excited, having entirely disappeared."

So completely does the valued opinion of Robert Chambers,* represent the facts of the case, that I quote the greater portion of this article.

"I have been taken by a friend to see stammering cured by Mr. Hunt. Though a matter in which a patrimonial interest is concerned, I feel tempted, by the interesting nature of what I saw, to make public allusion to Mr. Hunt's system. Two young men were in attendance, both grievously afflicted with stammering, and both new cases. One was asked to sit down, and Mr. Hunt then addressed a few questions to him, on which he made the usual wretched attempts to answer. This young man had no recollection of ever speaking fluently. His attempts to read were equally miserable failures. Mr. Hunt then explained to him, in simple terms, the physiological and moral causes of stammering, and gave him a few very intelligible directions for the regulation of the mouth, tongue, respiration, and the part of the chest to speak from. The youth was soon able to

* *Chambers' Edinburgh Journal*, April 10, 1847.

pronounce sentences, and also to read with considerable readiness. The other youth was then put through a similar series of lessons, and in an equally short time the comparatively perfect use of the organs was attained in his case. On a subsequent visit, I saw a girl who stammered and hesitated in an extraordinary manner, restored to a common style of speech in less than twenty minutes. These, however, are not cures. A complete victory over the bad habit can only be the work of time. There is no mystery whatever in the plan. It is merely replacing nature upon her pivot, from which accident or bad habit had thrown her. What the instructor does is but a small part of the cure. The greater part is the work of the pupil, fully obeying the rules, and persevering in them, till a new habit has been acquired. Most persons, I conceive, would not be safe from a relapse under carelessness for many months, and individuals of weak will might fail altogether.

* * * * *

“ The exhibition is a most interesting one, creating that peculiar satisfactory feeling which we experience when the triumph of nature over error is asserted. Yet, as if to make good the rule that all benefits to humanity must come through the sufferings of individuals, Mr. Hunt has been subjected to persecution on account of his practice. It was discovered that stammering ought to be regarded as a disease, and therefore treated only by qualified medical men ; on

this ground Mr. Hunt was publicly denounced as a quack. It would be as reasonable to demand that a dancing-master, who substitutes graceful for awkward walking, or an elocutionist, who extirpates patois from the tones of the voice, should have a medical diploma. A beautiful thing it would be, indeed, for the resolver of this difficulty to go to a faculty altogether ignorant of the subject, and study their mysteries, which have nothing to do with it, and nine-tenths of which are now under a strong suspicion of being mere delusion, before he could be allowed to make use of an invention of his own, the benefits of which are palpable."

The following is from the pen of Mr. John Forster, the well known biographer of Goldsmith.*

"A prospectus is before us, issued by Mr. Hunt, on the subject of impediments of speech, and the possibility of their easy and certain removal, without any kind of surgical intervention, which we think of sufficient interest to bring under notice in this place. Struck by the announcement, and by a remark of the late Mr. Liston, among the testimonials quoted, we have sought and obtained an opportunity of witnessing the process adopted by Mr. Hunt. We have no hesitation in expressing a most favourable opinion of Mr. Hunt's process. Based upon clear and intelligible principles, it has the merit of singular simplicity. Mr. Hunt explains to his pupils the anato-

* From the *Examiner*, of March 2, 1850.

mical construction of the organs by which the voice is produced, points out the different causes of stuttering, and teaches how an easy utterance may be obtained by removal of the cause that obstructs it in the particular case. There is nothing difficult to understand, or that the least intelligent may not readily seize, and instantly act upon. When we can discover what has induced a habit contrary to nature, we are surprised to see how easily nature resumes what she might seem so completely to have lost. Whether or not she may be able to keep it depends on other considerations. In the case we had the pleasure to see tried, a young man, whose unavailing attempts to read a line of verse had been quite frightful to witness, was enabled by something less than an hour's instruction, to read the whole of Gray's *Elegy* with tolerable ease. Nor had we the least doubt that perseverance in the instructions given would eventually make the cure complete. But that this perseverance would be necessary, even to the point of incessant and uninterrupted practice for a very considerable time, we thought not less clear. Habit must be conquered by habit. With this proviso of hearty and laborious co-operation on the sufferer's own side, we believe that a very ingenious and intelligent gentleman has really discovered an efficacious cure for a most distressing defect, and we are happy to take this opportunity of saying so."

The number of pupils whom my father had relieved at last became very numerous, and many were anxious to express their gratitude to the benefactor who had rescued them from what must always have been a barrier to their success in life. From various notices which appeared at the time, the following is extracted from the *Literary Gazette*, February 24, 1849 :

“The cure of stammering by Mr. Hunt has so often commanded our special consideration, that we are gratified to find the success of his simple and efficacious system (almost without a failure, as we have witnessed for a number of years) is in the course of being marked by a public testimonial from a grateful band of the pupils he has taught to relieve themselves from these painful embarrassments, and enabled to take very different positions in life from those which such impediments imposed.”

This gratifying tribute is an excellent likeness, affectionately prized by his family and friends, and is a lasting memorial of his services to his fellow creatures. It is thus recorded in the *Catalogue of the Exhibition of the Royal Academy for 1849.*

“No. 1336. Marble bust of Thomas Hunt, Esq., author of the system for the Cure of Stammering. Subscribed for, and presented to him, by his pupils, in testimony of his services during a period of twenty-two years.

“JOSEPH DURHAM.”

Ardently pursuing his task, Mr. Hunt, at the close of his London sojourn, in 1851, left for Dorsetshire, when, alas! in the midst of health and joyous expectations, the strong man was struck down, and suddenly removed from his sphere of usefulness, as is recorded in the subjoined obituary.

“Obituary of Eminent Persons,” in the *Illustrated London News*, August 23, 1851.

“THOMAS HUNT.—After one week of severe illness, died at Godlingstone, near Swanage, on Monday last, the 18th inst., Thomas Hunt, Esq., so long and so justly held in high esteem for his skill in the cure of stammering. During some twenty-five years of Mr. Hunt’s practice, a great number have been benefited by his care, and very many have to be grateful to him for rescuing them, not only from the mortification and distress of a painful disorder (for such it is), but for rendering them eligible to undertake higher stations in trade, the army and navy, all the liberal professions, and even in the legislature. His system was simply to teach the sufferers, by the plainest common-sense direction, the means of restoring nature to its functions, which were perverted and counteracted by evil habits, or the curious infection of involuntary imitation. Mr. Hunt held, and truly held, that not one case in fifty was the consequence of deficient or mal-organization; and he sternly and perseveringly eschewed the knife. In many cases

the effect of a single lesson was so remarkable as to appear like magic, converting the convulsive stutterer from distressing unintelligibility into freedom of voice, distinctness of utterance, and correctness of pronunciation. The pupil and the witnesses of such an hour's change were alike astonished by the obvious process, which only required a degree of moderate attention to confirm for ever.

“Mr. Hunt was of a good Dorsetshire family, many of whom were connected with the Church. He was educated at Cambridge, but circumstances led to his choice of farming instead of taking degrees. His devotedness to his one great pursuit did not prevent him from cultivating, as a distinguished agriculturist, a large farm in Dorsetshire, where he was as much respected in that sphere as he was generally esteemed for his peculiar talent in what may be termed professional life. A widow and family of eight children are left to lament his loss.”

An extract from the speech of the Right Hon. the Earl of Carlisle, K.G., at the General Anniversary Meeting of the Royal Society of Literature, 1852, also records the same melancholy event.

“The society,” said his lordship, the president, “has lost during the year, Mr. Thomas Hunt, who, educated at Cambridge, and intended for the Church, found himself compelled to devote the energies of his whole life, if not to a very aspiring, at least to a most

considerable aim of benevolence—the relief of the distress occasioned by stammering. I learn, from authority of high professional eminence, as well as from the attachment of his personal friends, that his mode of treatment was attended with the most distinguished success, and that to the poor especially he was signally liberal and kind as an instructor."

Mr. Hunt's death appeared to be the signal for the revival of competition in the walk he had occupied, to the exclusion of the advocates for surgical operations and pretenders. The notorious and the obscure rushed forward, and anonymous books, pamphlets, and advertisements appealed to the public, with every assertion of infallibility. The public was thus speedily besieged by a corps of resolute curers of stammering, widely differing from each other as to the nature of the affection. But if there be wisdom in the multiplicity of judges, there is distraction in the multiplicity of counsellors. Some, mere teachers of languages, fancied themselves able to cope with the sometimes intricate causes which produce this affection ; others, not nearly so qualified, were still more pretentious.

" On his death a host of pretenders sprang up, all, of course, professing his system ; and all, as far as I have ever heard (and heaven knows I have had cause to hear enough), failing, and ducking under again into their native mud.

“One man, a Wesleyan deacon, or some such functionary, used old Mr. Hunt’s testimonials, boldly announced himself his successor, and received, without a word of explanation, inquirers and pupils who came to seek him.

“This was a ‘pretty sharp state of business,’ as our transatlantic brethren say; and one is puzzled to guess whether (and if so in what terms) he related his ‘experiences and exercises’ on the subject to his class leaders or other father-confessors. But probably he had arrived at that state of sinless perfection, boasted of by some of his sect, in which such legal and carnal distinctions as honesty and dishonesty vanish before the spiritual illuminations of the utterly renewed man. Whether he practises now or not, I neither know nor care. I suppose he has gone the way of other pretenders.”*

* *Fraser’s Magazine*, July 1859.

A P P E N D I X B.

—
HINTS TO STAMMERERS.*
—

THE following advice to stutterers and stammerers is so valuable that I have thought it advisable to print the extract entire.

“ And now one word as to Dr. Hunt, son of the worthy old Dorsetshire gentleman, the author of the book mentioned at the head of this article. I could say very much in his praise which he would not care to have said, or the readers of *Fraser* to hear. But as to his power of curing the average of stammerers, I can and do say this—that I never have yet seen him fail where as much attention was given as a school-boy gives to his lessons. Of course the very condition of the cure—the conscious use of the organs of speech—makes it depend on the power of self-observation, on the attention, on the determination, on the general intellectual power, in fact, of the patient;

* Extracted from an article entitled “ *Irrationale of Speech*, by a Minute Philosopher, C.K.,” being a review of the author’s work, *A Manual of the Philosophy of Voice and Speech*, and *The Unspeakable, or Life and Adventures of a Stammerer*. See *Fraser’s Magazine* for July 1859.

and a stupid or volatile lad will give weary work. Yet I never have seen even such go away unrelieved. For nature, plastic and kind, slips willingly into the new and yet original groove, and becomes what she was meant all along to be ; and though to be conscious of the cause of every articulate sound which is made, even in a short sentence, is a physical impossibility, yet a general watchfulness and attention to certain broad rules enable her, as she always is inclined to do, to do right on the whole. For after all, right is pleasanter than wrong, and health more natural than disease ; and the proper use of any organ, when once the habit is established, being in harmony with that of all other organs, and with the whole universe itself, slips on noiselessly, it knows not how, and the old bad habit of years dies out in a month, like the tricks which a child learns one day to forget the next.'

" But, over and above what Mr. Hunt or any other man can teach, stammerers, and those who have been stammerers need above all men to keep up that *mentem sanam in corpore sano*, which is now-a-days called somewhat offensively muscular Christianity—a term worthy of a puling and enervated generation of thinkers, who prove their own unhealthiness by their contemptuous surprise at any praise of that health which ought to be the normal condition of the whole human race.

" But whosoever can afford an enervated body and an abject character, the stammerer cannot. With

him it is a question of life and death. He must make a man of himself, or be liable to his tormentor to the last.

“ Let him, therefore, eschew all base perturbations of mind ; all cowardice, servility, meanness, vanity, and hankering after admiration ; for these all will make many a man, by a just judgment, stammer on the spot. Let him, for the same reason, eschew all anger, peevishness, haste, even pardonable eagerness. In a word, let him eschew the root of all evil, selfishness and self-seeking ; for he will surely find that whensoever he begins thinking about himself, then is the dumb devil of stammering at his elbow. Let him eschew, too, all superstition, whether of that abject kind which fancies that it can please God by a starved body and a hang-dog visage, which pretends to be afraid to look mankind in the face, or of that more openly self-conceited kind which upsets the balance of the reason by hysterical raptures and self-glorifying assumptions. Let him eschew, lastly, all which can weaken either nerves or digestion ; all sexual excesses, all intemperance in drink or in food, whether gross or effeminate, remembering that it is as easy to be unwholesomely glutinous over hot slops and cold ices as over beef and beer.

“ Let him avoid those same hot slops (to go on with the *corpus sanum*), and all else which will injure his wind and his digestion, and let him betake himself to all manly exercises which will put him into

wind, and keep him in it. Let him, if he can, ride, and ride hard, remembering that (so does horse exercise expand the lungs and oxygenate the blood) there has been at least one frightful stammerer ere now who spoke perfectly plainly as long as he was in the saddle. Let him play rackets and fives, row, and box ; for all these amusements strengthen those muscles of the chest and abdomen which are certain to be in his case weak. Above all, let him box ; for so will 'the noble art of self-defence' become to him over and above a healing art. If he doubt this assertion, let him (or, indeed, any narrow-chested porer over desks) hit out right and left for five minutes at a point on the wall as high as his own face (hitting, of course, not from the elbow, like a woman, but from the loin, like a man, and keeping his breath during the exercise as long as he can), and he will soon become aware of his weak point by a severe pain in the epigastric region, in the same spot which pains him after a convulsion of stammering. Then let him try boxing regularly, daily ; and he will find that it teaches him to look a man not merely in the face, but in the very eye's core ; to keep his chest expanded, his lungs full of air ; to be calm and steady under excitement ; and lastly, to use all those muscles of the torso on which deep and healthy respiration depends. And let him, now in these very days, join a rifle-club, and learn in it to carry himself with the erect and noble port which is all but peculiar to the

soldier, but ought to be the common habit of every man ; let him learn to march ; and more, to trot under arms without losing breath ; and by such means make himself an active, healthy, and valiant man.

“ Meanwhile, let him learn again the art of speaking ; and having learned, think before he speaks, and say his say calmly, with self-respect, as a man who does not talk at random, and has a right to a courteous answer. Let him fix in his mind that there is nothing on earth to be ashamed of, save doing wrong, and no being to be feared save Almighty God ; and so go on making the best of the body and the soul which heaven has given him, and I will warrant that in a few months his old misery of stammering will lie behind him, as an ugly and all but impossible dream when one awakes in the morning.”



NOTICES OF THE PRESS
 or
 HUNT ON STAMMERING.
 —
 FOURTH EDITION.

Edinburgh Medical Journal, May 1861.

“Dr. HUNT treats his subject in a masterly and compendious manner. His remarks on the history, nature, and cure of stammering and stuttering are sound, comprehensive, interesting, and of important practical value. It is a book in short, the contents of which are abundant evidence of its having emanated from one thoroughly conversant with its subject; evidence requiring no such aid as can be afforded by mere testimonials. To all interested in the matter of which it treats, we can most unhesitatingly recommend this volume.”

The Standard, March 1861.

“Mr. Hunt's name is familiar to scientific men of the present generation. ‘Stammering and stuttering’ is as perfect a treatise as we are likely to see upon the subject. It places in a true light and removes the difficulties which attend the treatment of the impediments of human speech, and the principles which govern this treatment are as easily comprehensible by the ordinary reader as by the medical student. Mr. Hunt's book marks an era in medical science, and to medical men and others we heartily recommend it.”

British and Foreign Medico-Chirurgical Review, October 1861.

“There are some disorders and vicious habits of the body, the treatment of which by reason of their comparative rarity, and from the requiring for their alteration as much moral as a physical method, is ordinarily removed from the sphere of the medical man. The habits of stammering and stuttering are among such; and thankful must a parent be who can turn to any quarter whence guidance in curing a tendency thereto may be expected. We

have already had occasion to notice Mr. Hunt's *Manual of the Philosophy of Voice and Speech*, a work wherein the author shows himself so familiar with his subject, that we are not surprised at his applying his knowledge of the natural conditions of speech and voice to the cure of deviations therefrom. The present work is in reality a fourth and enlarged edition of his *Treatise on the Cure of Stammering*, and contains much interesting and discursive information, gathered from all countries and all ages, as regards the history and statistics of the subject in question and the numerous theories, modes of treatment, etc., which have prevailed respecting it.

As respects the method of cure adopted by Mr. Hunt (the same upon which the reputation of his deceased father rested), it is confessed, that no precise account is given in the work. The method is by no means an esoteric one apparently, but provided no organic defect exist, simply consists in the patient's being made to understand what elements enter into the processes of vocalization and articulation, how the lips, the tongue, the jaw, and the organs of respiration are therein concerned, in finding out which of these organs is from habit wrongly worked, and teaching the sufferer how to regulate the faulty action. For the execution of this method no exact rules can be laid down; experience on the part of the attendant, following upon suitable physiological knowledge, must guide the treatment, along with aptitude on part of the patient, and careful attention to mental tranquillity and self-control. The author has done well to relinquish the former title of the book."

Morning Post, January 26, 1861.

"At first sight the subject of this book is not one of interest to the general reader. Dr. Hunt, however, makes it so. It would not be easy to find any book of a professional character in which the matter in hand is treated more popularly. Few men have studied the subject of defective utterance to the same extent as the author, and fewer still have the same faculty of imparting professional information to non-professional readers."

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APPLIED TO THE ART OF PUBLIC SPEAKING.

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OPINIONS OF THE PRESS.

From *The Spectator*, January 18, 1859.

“MR. HUNT has introduced the results of his own consideration of the questions, especially in reference to his professional experience....A vast repertory of facts and opinions relating to the physical organs of utterance, and of utterance itself, from the lower *animantia* to man, and of the various questions connected with voice and language. These facts, too, are curious and useful.”

From *The Observer*, January 9, 1859.

“The volume is learned, and at the same time instructive and amusing; and as a work which has no parallel in the English language, as well as a work of great value, it can be safely recommended to public notice.”

From *The News of the World*, January 16, 1859.

“This is the most comprehensive, philosophical, and practical book we have met with upon a subject deeply interesting to many thousands of the British public. The collection of materials for its development, under all its variety of heads, must have been the labour of many years, and the lucid arrangement of them cannot be praised too highly. We have now, for the first time, the philosophy of voice and speech explained thoroughly, intelligently, and plainly. The nervous system, the organs of hearing, the vocal apparatus, and the manner in which the voice is produced, form the topics of several chapters, wherein a fund of useful knowledge

is developed, and suggestions are made of practical utility. The disorders of the voice and defective articulation also receive attention, and are very satisfactorily treated. Considerable space is given to public speaking, and the rules for success therein, a topic which may be studied with advantage, not only by those who aim at public displays, but by those who would arrive at a good style of elocution in domestic life. Dr. Hunt's book is one of great merit throughout, and well deserving of public attention."

From *The John Bull and Britannia*, Jan. 22, 1859.

"The above-named work, wherein care, ability, and research abound, we most sincerely hope will stimulate attention to the much neglected art of oral delivery. Mr. Hunt explains simply, and advises practically; but not content, as many are, with merely pointing out error, affords besides the best counsel towards correcting it. In a word, either as a treatise on physical or mental defect or accomplishment, so far as the voice and speech are concerned, it is unexceptionably the result of long experience and study, and a complete text book on the subject."

From *The Examiner*, January 15, 1859.

"There are many curious details and sensible remarks in Dr. James Hunt's book, on *Philosophy of Voice and Speech*. The author is well known as a practitioner to whom many are indebted for the removal of impediments in speech; but his book is not, like so many of its kind, a mere advertisement of his own practice; he is interested in the subject of his special study, and, out of his real interest therein, this book arises."

From *The Country Gentleman's Journal*, Jan. 29, 1859.

"This volume is rich in new matter, and the *Philosophy of Voice and Speech* is fully expounded by a learned professor thoroughly competent to undertake the task. By its clearness and compactness, the reader, even of moderate capacity, is enabled to seize a clear idea, and garner in his mind a large store of the subject under discussion. To those unfortunate individuals who stammer out at public meetings that 'they are unaccustomed to address large assemblies,' and who pronounce the most miserable moments of their existence as the happiest, this manual is invaluable, and we strongly recommend it to all classes of readers; by its perusal the scholar will add greatly to his fund of information, while the unlearned will be struck with new ideas of philosophy of which he had never previously dreamt."

From *The Morning Chronicle*, January 14, 1859.

"Not one professor in a hundred knows anything of the physical composition of the organ whose management he teaches, nor is he aware of the acting causes which contribute to its failure or deficiencies. Dr. James Hunt, for many years a practitioner in the

cure of impediments of speech, has stepped forward to remove this reproach and supply a great existing requirement. In a goodly volume he has placed his experiences before the world, and for the first time we really have an authority upon, not merely impediments and physical obstructions, but upon the voice itself, in its relation to its employment, and upon the thousands of causes which weaken, deteriorate, and impoverish its powers. We confess, on taking up this volume, we were at first a little dismayed; a hurried glance at it seemed to show that it was diffuse—treating of subjects not immediately within the scope of the object proposed, and that instead of a practical inquiry into a question of universal interest, it was a mere medical treatise after all. Lest any of our readers should be led into the same error, we beg to warn them of it *in limine*. It is true that we have at the outset the chapters on respiration, the nervous system, the organs of hearing, sound, etc.; but in the broad way in which the subject is afterwards treated, these chapters will be found to be absolutely necessary; and it is fair, moreover, to say that, taken separately, they are eminently worthy of perusal, as giving a plain and comprehensive insight into the physical conformation of some of the most delicate organs of the human system.... The work before us is most valuable indeed, and in no part more so than in that portion which treats of the organs, which in their turn contribute to the integrity of speech. Here Dr. Hunt gives us much amusing as well as instructive information. As might be expected, Dr. Hunt is great in the chapter on stammering. We commend this chapter to the perusal of persons afflicted. Altogether Dr. Hunt's Manual is an attractive as well as an useful work, and, considering it must have cost not a little labour, has a high claim to the patronage of the public."

From *The Athenaeum*, March 19, 1859.

"Readable and interesting, because the author explains his subject clearly. Has peculiar claim to notice, as the work of a man who has brought study and experience of his life to bear upon a special subject."

From *The Morning Star*, January 17, 1859.

"The preparation of such a work was not a task within the scope of many writers, for physiology, philology, and rhetoric must each be laid under contribution. We can bear willing testimony to the author's general qualifications for the labour he has undertaken, and to the great value of the book."

From *The Illustrated Times*, January 19, 1859.

"We do not complain of this superabundance of information, for there is not an uninteresting or uninteresting chapter in the volume. But in giving our readers an account of the work, we feel it necessary to state, that it is not merely a handbook of public speaking, but something more. Viewed without reference to the special utility of the whole to public speakers, Mr. Hunt's Manual

can only be spoken of in terms of praise.... A mere list of directions for the management of the voice, together with a few oratorical precepts, would have formed but a poor, dry volume. Like everything Mr. Hunt has written, the *Philosophy of Voice and Speech* abounds in anecdotes. He is never at a loss for popular illustration or an amusing story with which to enliven the subject and engage the reader. The best chapters in Mr. Hunt's book are those directly referring to oratory, and young speakers will find his remarks on the subject very valuable.

From *The Globe*, March 7, 1859.

"We need scarcely say that on all subjects bearing on the rectification of defects of the voice and speech Mr. Hunt's remarks are worthy of respectful attention, and the present work adds the weight of scientific views to practical results."

From *Chambers' Journal*, March 12, 1859.

"There are many interesting anecdotes, and much practical good advice which is applicable to all."

From *The Press*, January 22, 1859.

"The concluding part of the volume is devoted to subjects to which the author has paid special and professional attention—disorders in the organs of voice; defects in articulation, deaf-dumbness, and mutism on the one hand—on the other hand, the cultivation and management of the voice, and the art of elocution. Here the author proves himself to be thoroughly master of his subject—not a mere theorist, but one who has had much practical experience, and speaks with all the authority which that experience gives him. Those especially who are called upon to address public assemblies, whether from the pulpit, at the bar, or in the senate, will do well to consult so judicious an adviser. Whatever we may think of Dr. Hunt as a philosopher, we hold it to be undeniable that he is an excellent practical manager of voice and speech."

Paper for the Schoolmaster, March, 1859.

"Dr. Hunt's Manual comprehends much more than might have been anticipated from its title. It is, indeed, full of varied matter, of the most important character; not as too many philosophical treatises are—cold and dry, but every page replete with interest. In strongly recommending this book as one which ought to be placed in the library of every association of schoolmasters, we feel sure that we are doing them a service for which they will be grateful."

Derby and Chesterfield Reporter, Jan. 28, 1859.

"This work is written in a clear and lucid style. Most of the technical terms are explained as they first occur in the course of reading. Altogether it is one of the most important works pub-

lished in this teeming age of literary productions. We venture to predict for it a high rank among the best standard works of our country."

From *The Sun*, January 15, 1859.

"This is a very able and useful work, which has evidently cost the author much labour and study.... A very useful Manual, blending science with simplicity."

From *The Literary Gazette*, January 29, 1859.

"We are bound to admit that the *Manual* is a very entertaining, and, in many respects, a very useful book. All sorts of readers will find matter here to interest them."

From *Bell's Weekly Messenger*, Jan. 15, 1859.

"This is a very curious work, and one which merits all the attention that can be given to it, and if Dr. Hunt meets with the reward to which he is justly entitled, his book will become as popular as it is creditable to his patience, his talent, and his research."

Illustrated News of the World, February 12, 1859.

"This is a thoroughly able work; every thought in it bears the mark of having been tested by experience; and in thus recording his observations and experiments, after many years of professional study of the subject, Dr. James Hunt has conferred an inestimable benefit upon the public in general, and upon all who seek to sway the public by the living voice in particular."

From *The Beacon*, January 12, 1859.

"... He tracks the footsteps of creative power along its line of action, and, with a bold hand, lifts the seal of its operations, and discloses to the eye of science the workings of the Almighty in the production of that marvel of nature, 'the voice divine,' exercising its loftiest functions in its most impassioned mode. Oratory, no doubt surpasses music; and to hear good speaking is the highest intellectual enjoyment of which our natures are capable. Superior intelligence may command the whole of it at a glance; but it is as delightful as astonishing, that we should be able, even by laborious processes, to follow and comprehend it; and that it is brought to the level of all is due (no light praise) to the ability, energy, and resources of the author. That he has treated a subject to which the whole experience of his life has been devoted as a labour of love, and that the rules he deduces for the management of the voice are no empirical nostrums, but the plain dictates of common sense, resting on an intimate scientific knowledge as their foundation, we might have been sure of from the experience and position of so successful a practitioner as Mr. Hunt, and he is fortunate in the possession of a clear, simple style, which is invaluable in a work that lays claim to a popular interest."

From *The Era*, February 18, 1859.

"Mr. Hunt has established a reputation as a special doctor, the best who can be consulted on all defects in the voice and utterance, and this volume shows that he is minutely master of all that science has yet discovered."

From *The Art Journal*, March 1859.

"When a practical man writes *con amore* upon a subject he loves, he rarely misses to make a book generally interesting to all. This is the case in Dr. Hunt's volume, which abounds with curious details and amusing anecdotes sufficient to make it agreeable to readers who would fear 'philosophy' less palatably given. Dr. Hunt, following his father's career, has long been known for his successful treatment of vocal defects; the present book is a proof how sound is his knowledge, and how well-grounded he is in all that relates to the art."

From *Fraser's Magazine*, July 1859.

"A book which should be in the hands, not only of surgeons, but of public singers, schoolmasters, and above all, of preachers."

From *The Medical Times and Gazette*, March 1859.

"A great deal of information has been collected and arranged in the form of a useful manual."

Colburn's New Monthly Magazine.

"Dr. James Hunt, son and successor to Mr. Hunt, who obtained so much celebrity by his treatment of the difficulties of utterance and other impediments of speech, has expounded the whole philosophy of the question in an excellent work, *A Manual of the Philosophy of Voice and Speech*. This work addresses itself to a far wider circle than the afflicted, and we have no doubt will meet with such a reception at the hands of the public generally as its merits entitle it to."

From *The Morning Herald*, January 21, 1859.

"The author has collected his materials from the best authorities. The work is one which will interest any one who takes it up. To those interested in the treatment of defects in the vocal organs the information it affords must prove extremely valuable. The chapters on public speaking are at once *suggestive and amusing*.

From *The Morning Post*, October 1, 1859.

"The work before us is a careful epitome of the labours of previous writers. It is divided into twenty-one chapters, each embodying under its proper head all that is essential to the eluci-

dation of the main subject. Dr. Hunt's *Manual* must be considered partly as a professional and partly as a popular composition. In its professional bearings he deals with those parts of the human anatomy immediately involved in the production of healthy and efficient voice. He opens the great question of races and languages which during all times must be one of absorbing interest to the scientific philologist. Dr. Hunt has evidently bestowed much care in the collection of the materials necessary for the elucidation of this part of his subject. His chapter on the origin of the English language is clear and comprehensive, embodying in a short space the most prominent facts illustrative of the subject."

From *The Dorset County Chronicle*, January 27, 1859.

"Mr. Hunt has shown by his researches into a special branch of human physiology what can really be done in scientific combat with the complicated infirmities of speech. His present effort transcends in ability all his previous endeavours, which we have had much occasion to praise. And though no longer a neighbour, for we perceive that he has for a time relinquished his romantic marine abode at Swanage, and founded a larger institution at Hastings, the volume before us possesses attractive merits, such as, proceeding from whatever locality, must rivet upon it general attention, and elicit on all hands the acknowledgment that the accomplished author has, indeed, developed the philosophy of his intricate subject, and has been the first to resolve the difficult theories of voice and speech into a practical code of scientific laws."

From *The Weekly Times*, January 29, 1859.

"This is a useful work. It does not pretend to originality, nor advance any views calling for discussion. It is, however, an excellent compilation. All the information relating to the subject of which it treats that could be gleaned from the best authors is collated, arranged in a careful and skilful manner, and where necessary, made comprehensible by notes of the author's very enlarged experience. Nor can it be denied that this subject is a very important one."

Midland Counties Herald, February 10, 1859.

"Great industry appears to have been exercised in the collection of the materials and conscientious care and ability in their application. The matter is characterized by fulness of exposition, without redundancy, and clearness of arrangement."

From *The Brighton Examiner*.

"Dr. Hunt's work is of a very comprehensive nature, embracing the condensed results of much curious and laborious research."

From *The Sheffield Independant*.

“We think Dr. Hunt has done good service by his work, and wish that the cultivation of the voice may henceforth receive more attention under such preceptorship as his. We may add that, scholarly as is the book, it is by no means dull, and will prove really interesting to those who will care to do it justice by an intelligent perusal.”

From *The Daily Telegraph*, February 19, 1859.

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From *The Freeman*, March 2, 1859.

“This book professes to be almost entirely a compilation; but it has the merit—in these days none too common—of doing well that which it professes to do. Various topics connected with the voice and speech are treated with brevity and clearness, and in respect to scientific details, with commendable accuracy. The subject is one in which all have an interest. Man can never cease to regard with curiosity that gift of language by which he is so highly distinguished, and if the most searching investigation of the organization by which speech is effected still leaves the mysterious power unexplained, yet such knowledge as can be thus acquired is rich in interest and value.”

From *The Civil Service Gazette*, February 20, 1859.

“Mr. Hunt, who has long devoted himself to the special investigation of human speech, and written learnedly and well upon it, has now produced a very comprehensive volume, which bears evidence of extensive reading and great care, and which, we doubt not, will be accepted by the public as a valuable contribution to the library of useful knowledge.”

From *The Court Circular*, March 5, 1859.

“Contains a variety of information well arranged, and carefully digested, interspersed with judicious remarks, and possesses more than passing interest. The work will be found of considerable use by any youthful member who is about to make his maiden speech at St. Stephen's.”

From *The Clerical Journal*, February 8, 1859.

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From *The Leeds Intelligencer*, January 29, 1859.

"The author is entitled to all the credit of originality for his selection, arrangement, and the use he makes of his materials, and for applying them in a way in which they were never before brought together in the elucidation of one connected theme. He has also the merit of great research and extensive requirements, and remarkable clearness and order in pursuing his subject. The concluding chapter of Dr. Hunt's work is on oratory and public speaking, to the consummation and perfection of which the whole of this able and instructive work may be said to contribute."

From *The Brighton Gazette*, February 3, 1859.

"The author has given us principles rather than theories, his aim being rather to advance that which is true than that which is new. The work is the result of considerable research and careful study; the different branches of the subject are well and clearly arranged, and dove-tailed, as it were, very nicely, one into the other. The earlier chapters, which are devoted to the elucidation of the physiological nature of voice and sound, are concise, clear, and well-arranged; the author's review of the philosophy of language, and especially of the English vernacular, is fair, practical and instructive; his observations on diseases of the voice and ear are valuable, and evidently based on considerable personal knowledge, and his remarks on the cultivation and management of the voice and oratory, and public speaking, merit the most extensive perusal; for the low position of oratory in this country, and especially among those who, by profession, should be orators, or at all events, good public speakers, is proverbial."

From *The Nottingham Review*, Feb. 20, 1859.

"All who are anxious to make the best use of their vocal organs, will find in the *Philosophy of Voice and Speech* an invaluable and most instructive companion. The study of it should precede all introductory works on singing and oratory. But those who would not think of listening to the counsel which this volume imparts to singers and orators may perhaps be induced to read it from consideration of health; we predict for this volume a high position among the standard productions of our national literature."

Notes and Queries, February 26, 1859.

"An elaborate essay upon the subject, which, we should think, must be read with advantage by all who are under those disadvantages in speaking which it is Mr. Hunt's peculiar object to remedy."

From *The British and Foreign Medico-Chirurgical Review*,
January, 1860.

"This book treats of so many branches of knowledge, that a doubt naturally arises as to the competency of any one individual to deal with them all. The chapters on the vocal apparatus, organs of articulation, and the production of the voice, are on the whole very good. The larynx is well described, and the progress of opinion respecting the action of the vocal ligaments and formation of the voice is accurately traced.... The only vocal phenomena which are not yet fully reconciled with the hypotheses are those of the falsetto. On this Dr. Hunt has some observations which we believe represent pretty accurately the present state of the case.... Dr. Hunt's account of the voice of animals contains a good summary of what has been observed on the subject, and is well worthy of perusal. Placing ourselves in the position of the general reader, which is the only one we are entitled to assume in respect to a considerable part of the matters treated of, Dr. Hunt's work contains a vast variety of information, which seems to us of a less inaccurate character than that usually to be found in books of such comprehensive scope."

From *The Gentleman's Magazine*.

"The leading object of this bulky treatise is to furnish the reader with an account of various opinions upon the philosophy of speech. In pursuit of this plan Mr. Hunt first makes us acquainted with the physiology of the organs of speech and hearing, and sums up with sundry suggestions on the management and cultivation of the voice in public speakers. Throughout the volume we have a variety of illustrations drawn from numerous sources, from which we may infer that, in addition to his professional studies, Dr. Hunt cultivates the *belles lettres*."

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